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IMPORTANT NOTICE!

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Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

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EDITORIAL NOTES.

IMPORTANT NOTICE!

Remember that the State Society meets at Del Monte, Tuesday, Wednesday and Thursday, April 16th, 17th and 18th.

Remember to secure a receipt certificate when you buy your ticket, so that you may get the one-third fare on the return trip.

Remember to have your receipt certificate signed by the Secretary at Del Monte.

Remember that the American Medical Association meets at Atlantic City, New Jersey, June 4th, 5th, 6th and 7th, and that special rate tickets will be on sale beginning May 25th.

Especially to those few physicians who have reproached the STATE JOURNAL for the amount of space it has devoted to the condemnation of nostrums, do we commend a careful reading of an address by Mr. Bok, of the *Ladies' Home Journal*, reprinted in this issue from the *Journal A. M. A.* In the last five years we have printed thousands of words, pages and pages of matter, condemning the ignorance of the physician who will prescribe for his patient a substance of unknown composition. And yet some of our mem-

bers have continued on their criminally ignorant course. We should like to know how any physician can excuse himself for using "antikamnia," for instance, one of the rankest of nostrum frauds which, with the passage of the food and drugs act, stopped using acetanilid and substituted therefor phenacetin! It is possible to understand how a privately owned and published-for-profit journal might continue the shameful prostitution of its pages to the promoting of these "patent medicine" frauds, but how is it possible for us to excuse the journals owned and controlled by the organized medical profession itself? New York, Michigan, Missouri, are startling examples of our "Unctuous words, but unclean hands." And these States are cited, not because there are no others, but because the representatives from these States have for several years been delivering the "unctuous words" in the House of Delegates of the American Medical Association, and then going home and doing nothing to put a stop to the open sale of the respect of their medical associations on the nostrum bargain counter. Mr. Bok is perfectly correct. We are not only doing nothing to help in the crusade against all this rottenness—a crusade for simple truth and honesty—but we are positively hindering him and other laymen in their work. And you can not say that there is no source of knowledge open to you; that you can only believe the words of a firm you believe to be honest. That is not true. The Council on Pharmacy and Chemistry is ready to give you the truth at any time, and if you are using "proprietary" preparations not approved by the Council, you are doing something that is not merely careless or ignorant, but is really criminal. It is your moral and legal duty to know the truth about that which you give your patients. Study Mr. Bok's article carefully.

The field opened by the opsonic theory of Wright and others is so vast as almost to paralyze speculation. As the technic required is somewhat complex and delicate, actual results obtained by following out the natural lines of the theory must necessarily come to us but slowly. While much of the medical press of the world has given considerable space to discussing the opsonic theory and its possibilities, we have thus far avoided the discussion and have awaited further developments. Enthusiasts here and there have claimed unlimited possibilities and almost unlimited probable cures as the natural sequence of the development of Wright's work and theory; but it remains to be seen how elaborate and far reaching the actual results will be. Elsewhere in this JOURNAL we take pleasure in presenting a couple of papers which set forth clearly and briefly the fundamental principles of the opsonic theory and the technic.

THIRTY-SEVENTH ANNUAL MEETING

OF THE

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

DEL MONTE, APRIL 16TH, 17TH AND 18TH, 1907

THE CALIFORNIA PUBLIC HEALTH ASSOCIATION WILL MEET AT THE SAME PLACE APRIL 15TH, AND AN INTERESTING PROGRAM HAS BEEN PROVIDED.

Tuesday morning there will be a general session at which the President's Address, Report of the Tuberculosis Committee, and several other general topics will be presented, including a paper by John W. Robertson giving some of the mental and nervous effects of the catastrophe of last April, and one by George H. Kress on the relation of medical societies to public health activities.

Wednesday morning there will be a symposium on Diabetes; Physiology of Glycosuria, by Martin H. Fischer; Operations on Diabetic Patients, by O. O. Witherbee; Treatment of Diabetes, by C. M. Richter; Prognosis, by C. W. Twitchell.

Thursday morning the symposium will be upon Gastropnoia and Allied Ptoes; Diagnosis, by L. G. Vischer; Medical Treatment, by Charles L. King; Surgical Treatment, by J. Henry Barbat. Should this symposium not occupy all of the time of the general session on Thursday morning, some of the medical papers will be read.

The afternoons of Tuesday and Thursday will be devoted to sessions of the sections on Medicine, Surgery, Eye, Ear, Nose and Throat Diseases, Dermatology and Genito-Urinary Diseases, with which section will meet the Pacific Coast Branch of the American Urological Association.

The Surgical papers include the following: Prostectomy for Malignant Disease, by Theo. G. Davis; Aberrant Thyroids, by A. S. Lobingier; Post-Inflammatory Adhesions, by W. P. Burke; Carcinoma of the Clitoris, by Chas. D. Lockwood; Surgical Import of Adhesions in Right Upper Abdomen, by Wallace I. Terry; Influence of the Usual Foot-Gear on Weak Feet, by S. J. Hunkin; Bone Filling, by Jas. T. Watkins; Cranial Surgery, by O. D. Hamlin; New Plaster Compound for Permanent Surgical Dressings, by Raymond Russ; Clamp for Holding the Ends of Fractured Long Bone for Screwing or Wiring, by H. M. Sherman.

In the Medical section we find the following papers: Infant Feeding, by R. L. Porter; Consequences of Gastric Ulcer, by Wm. Fitch Cheney; Pulmonic Sound in Mitral Incompetency, by W. W. Kerr; Specific Therapy in Tuberculosis, by George H. Evans; Stenosis of the Larynx, by F. G. Bur-

rows; Underlying Causes of Rheumatism, by Robert Crees; Differential Diagnosis Between Organic and Functional Disorders of the Stomach, by Dudley Fulton; Analysis of the Gastric Contents, by Boardman Reed; Pharmacologic Action of Salicylic Acid, by L. B. Stockey; Two Cases with Symptoms Increased Intracranial Pressure and Autopsy Findings, by Ross Moore; Grecco's Sign, by J. B. Frankenhimer; Manic-Depressive Insanity and its Main Features, by A. W. Hoisholt; Insects and Infection, by W. B. Wherry; Myelogenous Leukemia, by Henry Harris; Occipito-Posterior Presentations, by N. E. Richardson; Opsonic Index, by L. S. Mace; New Therapeutics, by L. J. Belknap; Filarial Diseases Found in California, by Herbert Gunn; Action of Toxins on Cardio-Vascular System, by W. A. McNery; Aneurism of the Heart, by W. C. Voorsanger; Placenta Previa, by A. B. Spaulding; Throat Infections of Childhood, by Saxton Pope.

The Eye, Ear, Nose and Throat section offers the following papers: Epidural Abscess Complicating Mastoid Suppuration, by Hill Hastings; Otitis Media in Children, by Sanford Blum; Cerebral Complications Due to Suppuration of Middle Ear, by C. F. Welty; Surgical Treatment of Motor Anomalies of the Eye, by B. F. Church; Brain Symptoms of Typhoid Simulating Those of Mastoiditis, by Kaspar Pischel; Frontal Sinusitis and Operation by Killian's Method, by E. C. Sewall; A Fatal Case of Pemphigus Beginning in the Pharyngeal Mucosa, by M. W. Fredrick; A Case of Pemphigus Beginning in the Mouth, by R. D. Cohn.

The section on Dermatology and Genito-Urinary Diseases, with which meets the Pacific Coast Branch of the American Urological Association, presents the following papers: Bladder-Neck and Some of Its Diseases, by R. L. Rigdon; Choice of Anesthesia for Operations Upon Genito-Urinary Organs, by M. Krotoszyner; Consecutive Methods in Genito-Urinary Diseases, by E. G. McConnell; Diagnosis of Enlarged Prostate, by Granville MacGowan; Lichen Planus with Lesions in the Bladder, by Geo. S. Whiteside; Extra Genital Chancres, by Ralph Williams; Demonstration of Liquid Air in Dermatology, by Howard Morrow.

Let us hope that the Thirty-seventh Annual Meeting of the State Society, which is to be held at Del Monte this month, will not come and go without seeing some vigorous expression of the paramount necessity for taking public health institutions out of politics. If we sit quietly by and make no effort toward the education of our lay citizens in those matters of general public interest where information should come from our profession, we have but poorly fulfilled our duty toward the community. The time has come when we can not blind ourselves to the fact that we owe something more than quiescent residence to the people of the place in which we abide and make our living. City and county health officers and boards of health should not be appointed for political reasons, but for professional fitness, and the voters should be told why this is so and what it means to the citizens to have it so. Preferably, such public health officers should be nominated by the county medical societies; and, indeed, it would be well if the county medical society were in truth the county board of health. It is a disgrace to a civilized state to have those in charge of state or county institutions for the care of sick or afflicted, appointed for political reasons and because of the "patronage" which they can deal out. We, as physicians, know what unfitness in the supervision of such institutions means to the poor inmates, but the general public can not know this unless we tell them. It is startling to see how quickly any good business man, lawyer or minister will appreciate the truth of these things when it is once pointed out to him. We can safely count on the support of the reputable portion of any community if we will but take the trouble to do our duty and point out what ought to be done and why.

NOTE.—Owing to the following long review of the "Viavi treatment," further editorial comment is not included in this issue. We especially request your attention to the Viavi review. It has been in preparation for several months, has been approved by the Publication Committee unanimously, and by the Council.

THE "VIAVI" TREATMENT; ITS PROMOTERS AND ITS LITERATURE.

Some twenty years ago, more or less, two young men, with a very small capital, but with highly developed commercial ability, and an "idea," began business operations for the development of the "idea" in San Francisco. It was soon evident that the "idea" was no less valuable than the methods of development followed by the clever promoters. Time passed, the business grew and expanded beyond the limits of the city or the state or the country. But the smooth surface of the municipality was not disturbed; these two quiet gentlemen did not advertise themselves or their business methods by forcing either upon public attention.

They soon began to acquire real estate in the vicinity of Van Ness Avenue, at first for their business requirements, and later for the investment of their profits. Presently their activities expanded; they moved into the down town real estate field and exhibited a shrewdness and a judgment in the selection and exploitation of development enterprises that very soon attracted the attention of the business men of the community. The Crossley and the Rialto Buildings were of their holdings, and were later traded for the Fairmont property; it is said, very advantageously. One of these brothers—for the men are brothers—undertook, we are told, on his own account the erection of the Monadnock Building on Market Street, which, it will be recalled, was one of the buildings practically undamaged by earthquake and but little by fire. The land is said to have cost \$1,000,000, and certainly the building must have increased the investment very considerably. It was one of the first buildings to be put in habitable shape immediately after the fire, and the financing of the enterprise is regarded by some business men as one of the cleverest pieces of financiering known in the city.

With the erection of these excellent civic improvements, attention was attracted to the two brothers who were thus demonstrating their faith in San Francisco, no less than their business acumen, by these very considerable investments from the proceeds of the well-cultivated "idea." They soon became prominently identified with various commercial activities. One of them was urged to become a director or trustee of the Young Men's Christian Association, and did so, retaining that connection, by request of the association, up to the present time. The other brother, we have been informed, has so impressed the financial element of the community with his most remarkable abilities as a financier and his excellent judgment in the selection of investments, that he was offered a large honorarium to give a few hours of his time as advisor to the management of one of the large banking institutions of the city, but could not spare the time from his own affairs. The commercial sagacity which saw the value of the "idea" and its development along original lines, and which intrepidly had its beginning with an extremely small capital, has been justified a thousand fold and has added to the city many large and magnificent buildings.

The real estate and commercial activities of these brothers must have been conducted with scrupulous probity, for they have the confidence of the moneyed interests and none is so keen to detect dishonest practices as the successful business man.

Lt us see whence came this stream of gold, pouring from the original "idea," broadening and deepening until it has become a river of gold, capable of conversion into palatial buildings and holdings valued at millions.

The "idea" found its material existence in what is known to the promoters as "the Viavi treatment," and in its essence is so simple as to pass recognition. After reading all the Viavi literature hereafter referred to, and after statements made

to us by Doctor Law, in our opinion the merit of the "treatment" consists in the well known principle of the vaginal douche. To be sure, the real "idea," the douche, is masked about and hidden under "Viavi capsules" and "Viavi cerate," and "Viavi royal," and almost innumerable other "Viavi" stuff, with curative powers apparently unlimited, as appears from the statements of the promoters hereafter set forth. Other things were cultivated as the territory enlarged under the brilliant management of the promoters, but the original source of the golden stream seems only to be the vaginal douche.

It is a well known fact that women seem to have the singular and rather unhealthy idea that the sexual organs should be ignored as something "low," "vulgar," or "indecent." Most of them do not keep those portions of the anatomy which are peculiar to themselves, clean. Few mothers teach their daughters even the fundamental facts of reproduction or the physiological data concerning their peculiar sex characteristics; fewer teach their daughters to keep the vagina clean by the use of douches; and fewer ever know, until they learn through experience, generally bitter, the tremendous importance of cleanliness and hygiene in the duties and obligations which are assumed with marriage.

Most women suffer more or less from their reproductive organs, and a very considerable amount of this discomfort or suffering is due to lack of commonsense cleanliness. And that, as we understand it, is exactly what the agents of the Viavi are eternally preaching; it is almost every other word in the documents which the concern puts out; keep the vagina clean, by the use of the douche, and use a little common sense. The immediate increase of personal comfort, and many times the quick relief from some annoying minor ailment, which follow upon the exercise of cleanliness and common sense, might so hypnotize the average woman who accepts the Viavi preachments and takes the Viavi "treatment," that she would be ready to believe almost anything the promoters care to tell her. But, of course, no large paying business could be built up by simply selling a little good advice and a trifle of common sense. There must be something definite to take, some wonderful, secret and very costly remedy that will work the result, to secure which the douche is but the merest preliminary. Hence the "capsules" and the "cerate" and the "liquid" and the "royal," and the rest of the wonderful remedies which, collectively, leave little uncured or incurable by Viavi.

Now let us see how these gentlemen, Messrs. H. and H. E. Law, originators of the "idea" and of the "Viavi treatment," as we have seen, well known citizens of San Francisco and prominently identified with members of its upright and honorable commercial bodies, work the "idea" and conduct its business side so that it earns for them the millions which pour into their coffers. The promoters are the brains and the life of the enterprise and cannot be dissociated from it.

Do the Viavi "remedies" contain morphine, or

opium, or some habit-forming drug? (See JOURNAL, August 1906, page 205.)

The very question which we asked was bitterly resented by these gentlemen. They claimed it was a reproach to their self-respect even to intimate that they, who seek to allieviate the pains of suffering humanity in general, could trade upon human life and character by selling to innocent people habit-forming "dope." They sent us copies of all sorts of certificates from analysts showing the absence of any harmful drug. And, furthermore, upon reflection, we came to the opinion that from the purely business standpoint, it was unnecessary to put an expensive article like morphine, and one liable to bring about trouble in the future, into their "remedies" when they do not need to. We need no further enlightenment and accept the statement that the preparations are free from morphine, etc.

"Were the Viavi remedies used for the prevention of conception or the procuring of abortion?"

This query was even more horrible to the promoters than was the former question. The very thought that such objects or purposes could be attributed to them was most painfully distressing to the Messrs. Law, and they felt keenly injured in their self-respect. They assured us in every way, by the spoken and the written word, that, so far from their having ever advocated the repulsive measures suggested, their greatest joy in life is to feel that, through the benevolent action of their remedies, they have aided thousands to become fruitful and have made the barren woman conceive and bring forth.

But we had heard that their agents *did* sometimes recommend that Viavi was a means of preventing or aborting conception. Could it be so? Well, while they preached against it in every possible manner, irresponsible agents would occasionally overstep their instructions and suggest the frightful misuse of the Viavi. But the company repudiated all such and, in a letter, offer to aid in the prosecution of any representative suggesting Viavi for this vile purpose, or offering to sell anything with Viavi for the same criminal object. Possibly the agents or representatives who so far transgress their instructions as to suggest the criminal use of what the makers hold to be one of the most valuable blessings ever bestowed upon a suffering people, have read and appreciated the import of the following statement (page 178 of a book entitled "Viavi Hygiene," edition of 1906), and another, quoted later:

" * * * but no attempt should be made to force or introduce the capsule into the mouth of the womb, as placing any substance within the cavity of the uterus is directly against the laws of nature, a fact shown by the contractions and labor-like expulsive pains that are induced by the introduction of any foreign substance within the uterine cavity."

We may safely assume that the Viavi "treatment" is free from opium, morphine, etc., and that the promoters do not encourage the practice

of preventing or aborting conception. Such being the case, the question very naturally presents itself: "What is the Viavi treatment; what does it do and what do the promoters say of it; how do they present their claims and what do they claim?"

The original "treatment" was directed wholly to the afflictions of women, if we are not mistaken, and consisted of good advice, cleanliness, the douche and a capsule which was to be placed in the vagina, preferably high up and touching the cervix. Later, a cerate was made, the argument being that the vagina could not absorb enough of the wonderfully curative remedies contained in the capsule, so they were incorporated in the cerate, which was to be rubbed energetically into the back and belly. Still later, a liquid, also possessing the marvelous properties of the capsule and the cerate, was put out. At the present time there seem to be, in addition to the three forms mentioned, Viavi "Royal," Viavi "suppositories," Viavi "tablettes," Viavi "eye treatment," Viavi "ear treatment," Viavi "tonic" and Viavi "laxative."

As to what it is, we confess ourselves a trifle at fault. The manufacturers speak of their various preparations as though "the great Viavi" were an entity, a special and particular substance created for the purpose of being incorporated into all of their various mixtures, of which it becomes the essential and universally curative base. On the other hand, a firm of analytical chemists reported recently, as follows: "The capsules contain no morphine, and so far as we are able to determine, they contain nothing but the extract of hydrastis and cocoa butter." Here is a difference of opinion. As all of the preparations are said to contain "the great Viavi," and as this one is reported to contain nothing but hydrastis and cocoa butter, we might possibly be excused for holding the belief that hydrastis enters into all of these wonderful compounds, and is the multifarious curative agent; or else, that the identity of "the great Viavi" changes as it enters into the different preparations.

Do the promoters of Viavi place before their patrons truth or fiction? Do the Messrs. Law, in conducting the Viavi business, adhere to those principles of honesty and fair dealing which, as citizens prominently identified with other and very large commercial activities, presumably they must exercise? In the business which has brought to them such enormous returns, have they exercised the common or "garden" variety of honesty, or have they resorted to half-truths and to but thinly veiled appeals to other influences?

Let us see what may be gleaned from the publications which they sent us. These consist of ten leaflets or pamphlets, one entitled "Health Book for Mothers and Daughters," and a volume of 610 pages entitled "Viavi Hygiene"; the work of wading through this mass of material has been by no means slight, and we have called upon a prominent gynecologist and a distinguished surgeon to aid in our labors by going through the material and making such comments as occur to them. All italics, etc., in quotations are ours.

From the "Health Book" we learn that Viavi "is purely a vegetable compound—more a food than a medicine, and is prepared in a predigested manner, so that it can be easily absorbed by the tissues of the body with which it comes in contact. The capsule is applied directly to the uterus through the vagina and is absorbed, giving health, strength and vitality to these parts. The cerate is applied to the skin over the diseased organs, and here, through the absorbent power of the skin, the patient is able to introduce Viavi into the system directly and in such quantities as may be desired. The membranes lining the cavities of the body, especially those of the mouth and nose, the throat, the bronchial tubes, the stomach, the bowels, the uterus, the vagina, and the bladder, originate from one parent cell early in foetal life and often when a person is predisposed to a weakness in this cell it is noticed in the lining membranes of these organs."

There is a truly beautiful, truthful and scientific statement! But why not include all the other tissues and structures of the body, which, equally with those named, spring from that one parent cell?

As we wend our strenuous way through the "Health Book," and through "Viavi Hygiene," we are ever confronted with references to the joys and pleasures of the "marital obligation," the terrific result upon the affection of the husband which follows upon the wife's loss of personal beauty, and we are continually informed that, as "nine women out of ten are lacking in health and strength, if not positively ill," the former pleasures will surely be lost and the affection wane, unless the unfortunate woman uses Viavi, when, of course, the desired result which follows upon health, is speedily secured.

Under the caption of Leucorrhea, we learn that "This is a complaint from which almost every woman suffers at some period in her life." *"It is the very life force ebbing away."* (Strangely like the phraseology of the "Men's-diseases-only" quack in his "literature" relating to spermatorrhea!) "She cannot bear healthy children. They will be liable to total weakness of the system," whatever that awful condition may be. "They may have scrofula or even consumption." The horrors are piled up, and we learn that "There are deep rings under her eyes, her complexion is yellow, she grows irritable and inexplicably melancholy. If she is a wife those duties that were once her pleasure become obnoxious. No matter how much she may love her husband, her marital obligation becomes distressing." Of course, Viavi dispels this all-embracing gloom, restores her "pleasure," removes the awful sentence from her unborn offspring and renders the "marital obligation" once more delightful.

Local offices are provided in all the principal cities and are presided over by "trained specialists in diseases of women" who have a "larger experience with these diseases than any other specialists could possibly have."

Examination of patients is entirely unnecessary, by the Viavi "treatment"; the patient makes her

own diagnosis, or "if a blank Health Statement is procured, filled out and returned, competent advice will be given upon it."

In one pamphlet we read that "A distinctive feature of the Viavi treatment is the permanency of the cure," while in another we are told that "It is one thing to make a cure complete; it is quite another to make it permanent. Of course we cannot insure anyone against a recurrence of disease." Of course not.

The proprietors of the Viavi "treatment" not only maintain that their agents are competent to suggest the proper treatment without examination of the patient, and that the omnipotent wisdom of the officials in the home office (or some other) can give "competent advice" by mail, but they refer in terms of greatest horror to physician, gynecologist and surgeon, intimating that more harm than good always results from obtaining professional advice from licensed physicians. The gynecologist is referred to as the "body carpenter" and his work as "sacriligious carpentry." We are told by the Messrs. Law in their publications, that operations "for the removal of a diseased breast rarely or never prove entirely successful," and that "extirpation or removal of diseased tissue by surgery is worse than useless."

One must pause to wonder what can be the sensations of the Fellows of the Chemical Society (England) when they think upon such utterances from their distinguished life member, H. E. Law, as we have quoted above. It must be gratifying to the fellow directors of Dr. Hartland Law, in the Young Men's Christian Association, to learn the remarkable degree of truth and scientific intelligence which he displays in his appeals to suffering women, no less than the respect which he shows toward one of the great liberal professions.

Let us quote a few extracts from the book, "Viavi Hygiene." "Let a father reflect what it means to a girl to be submitted to an examination, even by a most considerate physician, if she falls ill—and these examinations are almost invariably made, and are rendered wholly unnecessary by the Viavi system of treatment."

"The mutual confidence that grows up between a sufferer and a Viavi representative is beautiful. Out of it arise conditions of the greatest value to the sufferer in her progress toward a cure. The sufferer opens her heart, is enabled by the knowledge that she acquires to explain her condition intelligently. * * * Of course, the untrained mind of a girl is much more able to explain her condition than could a 'most considerate physician.'"

"Every day thousands of women throughout the civilized world are deprived of their sex by the surgeon's knife, but the emasculation of a man is so rare an occurrence as to be extraordinary."

"Believing, as they do, that a woman's sex is of small or no importance to her economy, it is no wonder that physicians abound who will employ surgery to relieve them from the annoyance of menstruation and the risk of insemination."

"Wherever we look, using our eyes and brains,

we see that sexual capacity and sexual appetite go together, and that they are absolutely inseparable; that there can be no sexual desire unless there is sexual capacity."

"A woman with a low estimate of the value of her sex * * * will not understand what her physical perfection means to her husband, nor how closely marital happiness depends upon it."

"A very large proportion of women's diseases were really incurable until the Viavi system of treatment was introduced."

"As for the influence of physicians with regard to the Viavi system of treatment, while many of the broader sort heartily indorse the treatment, some may be found arrayed against it, and ready to condemn it if their opinion of its merits be sought." (It would be interesting to know the names of "many of the broader sort" of physicians who indorse the Viavi "treatment.")

"The number of women whose breasts have been needlessly removed is appalling * * * a woman deprived of one or both of her breasts is hopelessly and lamentably disfigured."

There is a long chapter on "Conjugal Relations," which is certainly sufficiently explicit for the average girl whose father is warned against the evil, nay, terrible, results which are entailed by calling in a physician when she is ill. Much might be quoted, but one fragment will suffice:

"The evil effects of unsoundness of the sexual nature are so various and far reaching that even Viavi advocates *who have made so close a study of them*, doubtless fall far short of estimating them at their full value and to their whole extent. Thus, we may find conjugal infelicity between two persons seemingly perfectly healthy, the woman particularly being apparently perfectly sound in her sexual nature. (*sic.*) Yet she very likely inherited from her mother, through the latter's efforts to avoid maternity, a dislike for children and a refusal to bear them, thus incurring her husband's illfeeling; or she may have inherited a dislike for her husband's attentions." (This is most respectfully referred to Havelock Ellis, and doubtless it will be found very edifying by him.)

"A wife may have so strong an affection for her husband that, even though she is lacking in desire, she takes a certain pleasure in giving him pleasure; but it is clear that this is a different thing from sexual pleasure, and that unless a woman enjoys this sort of pleasure she is not only losing what Nature intended she should have, but is violating a natural law of her being, and must suffer the penalty in one way or another." Of course we find, later on in the same paragraph, that "the effect of the Viavi system of treatment in such cases is remarkable in every way * * * rejuvenates the whole nature (*sic.*) of a woman—makes her perfect in all the *attributes of wifehood.*"

"Everything connected with it (Viavi) tends to bring women into a closer relationship with Nature and Nature's God."

"Curetting, the ordinarily prescribed treatment

for flooding (metrorrhagia), has been rendered obsolete by the Viavi system of treatment."

"If the disease is in the form of tumors or polypi in the womb, she will be advised, sooner or later, unless she adopts the Viavi system of treatment, to submit to an operation in which her abdomen will be cut open on the median line, and the *symmetry of her figure destroyed*; perhaps she will be advised to submit to the removal of the womb. The Viavi system of treatment renders all these measures wholly unnecessary."

"A woman afflicted with any form of painful menstruation is in positive and imminent danger of a surgical operation, whether minor or capital, unless she adopts the Viavi system of treatment."

"Curetting is resorted to because those who employ it have no better means of treating the conditions that they wish to overcome. * * * The Viavi system of treatment has rendered curetting unnecessary wherever employed."

"Leucorrhea in time entirely destroys the chief function of the vagina. Its walls become loose and flabby. Thus *sexual commerce becomes unsatisfactory and incomplete*."

"* * * the remarkable effectiveness of the Viavi system of treatment * * * places it in the power of healthy wives to LIMIT THE NUMBER of their offspring for proper reasons, and women who are not fit for maternity to AVOID it by natural means."

What was it we asked about Viavi being recommended for the prevention of conception?

When the careful student of the book "Viavi Hygiene," reaches the section devoted to tumors, he first learns the depth of ignorance in which all the scientific world, except the brothers Law, is sunk. No longer need the British Medical Association expend money or its savants waste time in trying to find the cause of cancer. Let Harvard University terminate the existence of its Cancer Commission. These are all but foolish children, groping in the dark in the effort to find the cause of one of the saddest afflictions; the Law brothers have known it for years. The success with which they have kept their wonderful knowledge from the scientific world is no less than the modesty which they display in setting forth the facts in this greatest of all books. Listen: "If you have tears, prepare to shed them now!"

"The cause of these growths (tumors), which by inspiring terror drive so many women to a premature death by way of the operating table, is so simple a thing as a poor circulation of the blood. Tumors are caused by a stagnation of the venous blood. * * * This important discovery on our part has swept away the mist that has always surrounded this subject and enabled us to accomplish the most remarkable cures * * *."

"Ovarian tumors, uterine tumors, whether inside the cavity, in the walls, or outside the walls; tumors of the vagina and Fallopian tubes; fatty, cystic or fibroid tumors; in fact, *tumors of all kinds in all parts of the body*, have been treated successfully by the Viavi method." The Young Men's Christian

Association must take great pride to itself when it realizes that one of the gentlemen who voice this statement is on its board of control, for is not his modest plea calculated to draw shekels from the pockets of poor, suffering women in an anxious pursuit of health?

Nor is it only suffering women who may find relief at the hands of these gentlemen, these prominent citizens of our community who have grown from poverty to affluence—by exploiting the Viavi treatment. They do not hesitate to hold out encouragement to man when he contemplates the loss of his proudest possession, his testicles. For a monetary consideration, not stated, the Messrs. Law will give the wonderful Viavi treatment to men afflicted with atrophy of the testicles, and hold out the encouraging intimation of a probable cure.

"We recall particularly the case of a man suffering with wasting of the testicles, who secured perfect recovery from the Viavi cerate applied to the scrotum."

Note the keenness of the wording; the man "secured perfect recovery from the cerate," not from the wasting of the testicles!

Indeed, the keenness of the verbiage is one of the most remarkable things about the Viavi "literature," and is but another of the indications of the commercial acumen of the promoters, the Law brothers; for some years they employed, at no small expense, one of the cleverest writers on the Pacific Coast. Such work as theirs was not to be left to the ordinary "patent medicine" circular writer; their "literature," like their "treatment," must be unique, distinctive.

We are told, with the greatest air of frankness, that appendicitis, paralysis, paresis, locomotor ataxia, asthma, palsy "and many more, proceed from a depletion of nervous force—from *nervous debility*." While we are nowhere told that all of these conditions can be cured by Viavi, we are told that *nervous debility* may be prevented or cured by it, and the natural implication, so subtly conveyed by the clever writer, might well produce the result that the poor incurable is parted from his coin; or the person with appendicitis is deluded into giving up, perchance, his life.

The London Lancet for March 10th, 1900, and January 17th, 1903, pays its respects to the Viavi Co. In the first-mentioned issue, it commented upon certain facts which came out at an inquest held February 25th, 1900, by the coroner of East Sussex, upon the body of a woman who had died while under treatment by the Viavi system. The jury handed in the following verdict:

"We wish to return a verdict of death from natural causes; we also think that the life of the deceased might have been prolonged had she been placed under properly qualified medical treatment, and from the evidence brought before us, we consider the Viavi Company a fraud." In another case heard before His Honor, Judge Parry, in the Manchester County Court, on May 17th, 1901, the same fraudulent parties had to pay £50, with

costs, for breach of contract, i. e., for failing to cure.

It seems to us as medical men that nothing need be added to the force and effect of the foregoing excerpts from the literature issued necessarily with the approval of the Messrs. Law. But we trust that our present review of the "Viavi system of treatment," and of its promoters, will reach the eyes of many who are not physicians, and hence we must comment somewhat upon the general question discussed.

If the Laws are correct in their views on physiology and pathology, then the whole medical world is all wrong.

If their statements as to the value and effect of operations in cases mentioned in the foregoing quotations are true, then all the surgeons in the world are wrong and are doing infinite harm.

The whole progress of medical thought and advancement during the past hundred years is totally opposed to the remarkable theories of the Law brothers. What reputable physician, not employed by them, could be found to agree with them?

And what can be said of their printed statement that when a woman has acquired strength through the use of Viavi remedies, she can control and regulate the birth of her children and their number?

We ask all the honorable gentlemen who are business associates of the Laws, the directors of the Young Men's Christian Association, and the rest, what they think of the quotations from the Viavi literature above set forth? Do they agree with the claims of the wealthy brothers? Do they think that with increased health and strength a married woman can by more than one proper means control conception? Do they stand for that statement made by the proprietors of this "discovery"? Is the whole wide world, medical and lay, wrong, and are the commercially successful Laws alone right? Think it over, gentlemen!

Yet, of such is the business of the "Viavi" constructed; a business which has made two men, starting with practically nothing, affluent. Their patrons consist of confiding sick and suffering women, to whom, not skilled in medicine, their literature appeals.

Do their associates believe that the Viavi treatment can do what the Laws claim for it? Do they believe that it can cure or benefit the diseases in the list hereafter enumerated?

If they do not believe it, if they do not approve of the Law "literature," with its suggestions, with its insistence on the importance of the female form, with its intimations that the use of Viavi remedies will increase sexual pleasure, with its hints that wasting testicles can be benefited, and tumors of all kinds cured; with its insinuations, nay, statements, that child-birth can be controlled; that a woman can, through Viavi, become so "healthy" that she may "limit the number of offspring;" with their claims of benefiting suffering humanity and advising women never to have a tumor removed by the knife until, alas, it may be too late for the beneficent surgeon, and the victim of the false ad-

vice is claimed by death; if, we say, they do not approve of these things, what must be their thoughts, and the thoughts of the members of the Merchants' Association when they sit at dinner in the Fairmont Hotel on the night of April 18th, as we are told they will? Will they think of the matters treated of in this article and of the basis of the fortune of the Laws, or will they say "money talks," and think of what successful business men are the owners of the hotel in which they dine?

Will they care *how* the money has been garnered? Will they question whether the Law brothers are benefactors of humanity, or merely successful in making money out of the sick and suffering?

Arthur McEwen has said that any "Front street merchant" would prosecute his chief clerk for embezzlement for the mere crime of emulation! Perhaps, business men of this city, pillars of our municipal society, you do not care how people become rich, so that they *be* rich.

Perhaps, so long as a man does nothing actually criminal, nothing for which he could be sent to jail, our "merchant princes" do not care by what means wealth is acquired.

Gentlemen, do you, or do you not, approve of the manner of the money gathering of the Law brothers?

In closing, we must apologize to our readers for printing in the JOURNAL the excerpts from the publications of the Messrs. Law which we have made, for to us they seem salacious in the extreme.

As illustrating the extraordinary extent of the claims of the promoters, the one a life member of the Chemical Society and the other a director in the Young Men's Christian Association and a member of the faculty or directorate of the Hahnemann Medical School, San Francisco, we append a partial list of the various diseases which the published "literature" of the Viavi Co. states, either directly or by inference, that the Viavi system of treatment will cure:

The correction of improper or injurious pre-natal influences, curvature of the spine, spinal irritation, pain in the coccygeal region, paralysis of all parts of the body, amenorrhea, dysmenorrhea, menorrhagia, metrorrhagia, congestive dysmenorrhea, membranous dysmenorrhea, flooding, versions of the uterus, inflammation of the ovaries, vicarious menstruation, non-development of sexual organs, chlorosis, epilepsy, metritis, subinvolution, all forms of inflammation of the womb, abdominal adhesions, leucorrhea, all flexions of the uterus, prolapsus of the uterus, peritonitis, ovaritis, salpingitis, vaginitis, vaginismus, prolapsus of vagina, pruritus, cystitis of any variety, urethritis, caruncles, lax abdominal walls (ptosis?), used by the nursing mother it prevents diseases of suckled infants; mastitis, miscarriage, sterility, prevention of lacerations, cure of laceration of the cervix, "external lacerations," cervical cancer, cancer of breast, etc. (Note—"Viavi Hygiene," page 366. "We do not wish it to be understood that the cure of cancer comes within the clinical range of the Viavi system of treatment. It is a fully established fact, however, that the treatment has cured many cases diagnosed as cancer." This seems to be so constructed as to ensure the complete delusion of the unfortunate incurable, or the sufferer who might be cured by early operation; tumors of all sorts and in all locations, hemorrhoids, prostatitis, orchitis, atrophy of the testicle, afflictions of the male generative organs not traceable to venereal diseases, nervous debility, neuralgia, headaches, insomnia, appendicitis, paralysis, paresis, locomotor ataxia, asthma, palsy, obesity, offensive breath, varicose veins and ulcers, catarrh, colds, nasal polypi, hay fever, deafness, bronchitis, pneumonia, consumption, dyspepsia, gastritis, constipation, diarrhea, catarrh of the bowels, diabetes, albuminuria, abscess of rectum, fistula, prolapsus of rectum, sphincterismus, pruritus, stricture of rectum, cancer of rectum, rheumatism, lumbago, prevents inflammation and blood poisoning after serious injuries—"no necessity for amputations"—sprains, scalds and burns, infantile paralysis, incontinence of urine, croup, biliousness, skin diseases, earache, inflammation of outer ear, hardened wax, rupture of tympanum, inflammation of middle ear, eye strain, eye injury, conjunctivitis, granulated eyelids, iritis, ophthalmia neonatorum, pterygium, ozena.

THE PHYSICIAN AND THE NOSTRUM.*

By EDWARD BOK, Editor of the Ladies' Home Journal, Philadelphia.

During the four years that we have been engaged in the work of arousing public interest in the evil of "patent medicines" it has been my pleasure, in common with others, to have received hundreds of approving letters from physicians all over the country and scores of complimentary resolutions from medical bodies. And it is my sincere hope that the few words I shall say to you this evening, in my first appearance before a medical body, may not be accepted as being in any way unappreciative of those marks of approval. I appreciate and value them.

But I feel that the time has come, if we are to succeed in the fight in which we are engaged, to be perfectly frank as regards the relation of the medical profession to proprietary medicines. I am going to try to point out to you that in two distinct ways the medical profession is today absolutely hindering us laymen in our fight and clogging the wheels of further progress: First, in your inactivity where you should be active, and, secondly, by your direct co-operation with the "patent medicine" traffic.

Every man knows that the life of a nostrum depends on publicity, and one of the first things we did in our fight was to see to what extent the press could be persuaded to close its columns to the advertisements of "patent medicines." It was not easy, for the business office of a paper or magazine is very powerful. Yet today scarcely one of the reputable monthly magazines will accept a "patent medicine" advertisement, and the same is true of the prominent weeklies. The best of the farming papers are today immune from this advertising. Pressure is being brought on the religious press that will soon result in a general clearing up of those papers. Progress with the daily newspaper has been slower; still, there are forty-three daily papers, large and small, today that will not accept "patent medicine" advertisements. Now, gentlemen, remember that such a step means a great deal in the revenue of a periodical. I know a magazine that could easily increase its advertising revenue six figures a year if it accepted "patent medicine" advertisements. I have no doubt that if the New York Times and Philadelphia Ledger admitted this business these two papers could increase their revenue by at least \$50,000 a year. Many of these papers and magazines have taken this stand on principle; others because of the pressure brought on them by their readers. The public at large has been writing to its newspapers insisting that those advertisements shall stop; the church people have been writing to their papers; the farmers have been writing to their papers—all classes of the public have been busy; all classes, gentlemen—except the physicians.

Look at your average medical paper—reeking with the advertisements of proprietary—so-called ethical—preparations. And not only advertisements, but

reading notices palpably intended to deceive. The very class of papers that should have been the first to cleanse their pages is today the last to make even a move in that direction, and stands today, in this respect, as a discredit to honest journalism.

Now, what is the result? I go to the publisher of a newspaper and ask him to clean his columns of "patent medicines," and he points, as he has done in many cases to me, to the medical press. "Why, man," he argues, "these preparations can't be so bad as you fellows make out, or they wouldn't be advertised in these medical papers. These medical publishers know better than you do what is good and what is bad in these 'patent medicines,' and what they allow to go into their papers I guess we can safely stand for." That is why it is so important that the medical press should be cleansed of these advertisements: it is in the influence, the example that they exert on the lay press, and it is an argument on the part of the lay publisher that is very difficult to combat. It is this argument that again and again is used by lay publishers in writing to their protesting readers, and then these readers send the letters to me and ask, "Is this true? Are these advertisements permitted in good medical papers?"

Now, you know that it is true, and you know also that it should not be so, and yet what have you, physicians, done to stop it? You have, in your societies, passed resolutions, a very easy and comfortable thing to do and about as ineffective as it is comfortable. I have myself seen these resolutions received by the medical publishers, and disposed of with a grin—in the waste-basket. But what have you done as individuals? For let me tell you, as an editor, that the editor or publisher of a paper of any kind is mighty sensitive to the individual protest of his readers. When letter after letter comes in harping on the same subject, take my word for it: that editor or publisher is going to sit up and listen. Those letters are from the people on whom he depends for his support, and he is not turning a deaf ear to the source of his livelihood.

Let me give you an illustration of how this works. One of the most prominent daily newspapers began to get letters from its readers objecting to its "patent medicine" advertisements. The first few letters made no impression on the publisher, but as they kept coming in he realized that he had to make some sort of a show of being good. So he declined the most flagrant. When this fact became known to one after another of the "patent medicine" manufacturers, they argued that if this newspaper found it necessary to trim its sails to appease the public, it was idle for them to advertise at all to a public in that state of mind. So they stopped, and they have stopped so effectively that the publisher of another newspaper, which readily takes any "patent medicine" advertising it can get, told me a few weeks ago that, while his paper had carried in the first eight months of 1905 over sixty-two thousand dollars' worth of "patent medicine" advertising, this year for the same eight months he had carried eighteen thousand dollars' worth. That is what can be done.

*Read, by invitation, before the Philadelphia County Medical Society, December 12, 1906. A report of the papers and discussion at this meeting on the Symposium on the "Suppression of Quackery" appeared in the Journal, January 19, 1907, p. 248.

Now, while the people at large have been busy with their papers, I have not heard of a single well-ordered and coherent movement on the part of the medical profession individually to do the same work with its papers. You have talked beautifully, but what have you done? The best proof of the fact that you have done practically nothing is shown in the condition of your papers, and yet, gentlemen, it was your duty, more than the duty of any other body of men, to do this. It is no excuse to say that physicians are too busy. There are men in other professions just as busy as you are. You have been inactive. You have allowed us laymen to work with our papers while you have sat idly by, or made desultory attempts, where you should have taken a vigorous individual stand and stopped it. And you can stop it if you make an honest effort. You are the supporters of these papers; without you they can not exist, and on you, directly and solely, rests the responsibility of the present situation that we as laymen can scarcely go any farther with compelling the cleansing of our papers so long as those papers can point to the medical press as its companion in perfidy.

You have two ways open to you:

Either insist as subscribers and readers that these papers shall cease these advertisements.

Or stop, as physicians, from prescribing these medicines yourselves and thus make this advertising unprofitable. Or both.

And this brings me, naturally, to my second point; your direct cooperation with the "patent medicine" curse—a cooperation that I confess, gentlemen, is nothing sort of appalling. I give you my word for it that as one result of my investigation of this question there has come to me an amount of evidence as to the unintelligent prescription of secret proprietary medicines on the part of physicians that, if published, would tend to cause an amount of unrest and distrust on the part of the public that is mighty unpleasant to think of.

It is not for me, gentlemen, to diagnose the reason why physicians habitually prescribe proprietary preparations. Several of your own writers claim because it is easier; others because physicians are lazy, and still others that your medical colleges do not adequately teach the writing of prescriptions. I do not know, for I am not competent to say, but what I do know is that this prescribing of these preparations seems to be on the increase to an alarming extent. You own Dr. Jacobi says that in twenty-five years the percentage has grown from one in fifteen hundred prescriptions to 20 and 25 per cent. He also says that in a single New York drug store investigation showed that "70 per cent of the prescriptions sent in by reputable physicians contained either nostrums, pure and simple, or as a part of a compound." Doctor Billings, of Chicago, says that in his city the records of one drug store showed 42 per cent of prescriptions prescribing proprietary medicines, and in another 50 per cent. In Boston 38 and 48 per cent.

Now, gentlemen, I will not gainsay that there

are good proprietary preparations and that a physician, after a diagnosis of a case, and knowing his patient, and being fully aware of the exact ingredients in such an ethical preparation, is perfectly justified in prescribing it, if he feels that it meets the conditions of that case. Whether such a course is detrimental to scientific medicine is for him to settle with himself.

But there is a time when he is not justified in such prescription, and when he closely borders on the criminal line, and that is when he prescribes a preparation of which he either does not know the ingredients, or, what is even worse, when he has erroneous information as to those ingredients.

And yet this prevails today in the medical profession, and prevails to an extent that is almost impossible of belief to the layman. When I heard the first mutterings of this condition of things I gave it no credit. While I knew that physicians were human and made their mistakes in common with us all, I could not believe that they could make that mistake. But instance after instance came to me until I could no longer turn aside, and I determined to find out. And recently I did.

Conditioned that I should not reveal my source of information nor give names of remedies or physicians, I was given an opportunity to examine 100 prescriptions that had been filled. Of these 100 prescriptions, 42 prescribed a proprietary drug or article in part or in whole. I selected 30 of these, and called on each of the physicians who had written those prescriptions. Now, gentlemen, those physicians were men of excellent standing, some very high in their profession, and how many of those 30 physicians, would you say, gave me an accurate, or anything approaching an accurate, analysis of the ingredients of the nostrums which they had prescribed? How many? *Two*, gentlemen, *two* out of all the thirty! The rest either did not know, or—what is even more dangerous—thought they knew when they did not.

One of these prescriptions called for a certain headache remedy, given to a woman who was in an exhausted condition, who had weak heart action, and who, having read of the dangers of headache remedies, did not trust her own judgment, and called for her family physician. He gave her a remedy, saying that he knew it to be harmless, that it was entirely free of the powerful drugs of which she had read. Within a half hour of taking the remedy the woman's lips began to get blue, she went into unconsciousness, and it required all that two doctors could do to bring the woman back to consciousness. The remedy contained 61.5 per cent of acetanilid! The physician, when I saw him, showed me his proof on which he had based his knowledge, the statement of the manufacturers, whom he said were reputable people!—a statement, as I happen to know, written by a man who never went to a medical college, a man whose word every physician would scorn to accept did he know him. When I showed him my analysis he was dumfounded, and confessed he hadn't known. *But gen-*

tle men, he should have known. It was his duty to know!

Another prescription called for a certain tonic that the physician told me was one of the most reputable tonics known to the profession; its ingredients of quinin, beef and iron were universally known and nearly all physicians prescribed it. One of its greatest virtues was, he told me, that it was non-alcoholic. I proved to him that the tonic did not contain even a trace of beef or iron, but that it did contain 22 per cent alcohol. He could not gainsay my authority; he was surprised, and confessed that he had not known. *But, gentlemen, shouldn't he have known?*

One of these prescriptions gave to a child a remedy calculated to soothe restlessness. It did so, so effectively that the parents changed their physician, went to another, who prescribed another remedy, and the child lay in a stupor for two hours. I saw both of these physicians; they confessed to me they did not understand the case. But I did, gentlemen, for both of these physicians had given that child morphin concealed in "ethical" proprietary preparations, and when I proved this to them they were amazed and confessed they hadn't known. *But gentlemen, should not a physician, prescribing for a child, know?*

Five of these prescriptions called for a certain tablet supposed to build up the system in extreme cases of weakness, and especially given to women at certain periods of physical drain and exhaustion. All of the physicians assured me that these tablets were among the few ethical preparations that could be absolutely trusted, and each showed me a printed formula of their contents. These tablets, I was told, contained, among other things, iron peptonate, two purely vegetable compounds, and extract of nux vomica. "The best on the market," said one of these physicians to me. As a matter of fact, those tablets contain not the slightest trace of iron peptonate or nux vomica, but do contain two principal ingredients—starch and liquorice! And yet, gentlemen, these same tablets, I have learned from careful and authoritative sources, are today being prescribed by a large number of the best physicians of Philadelphia, and when I have asked several of them on what authority they were accepting their ingredients I was shown a printed formula by the manufacturing concern!

Some time ago, finding it necessary to know about a certain nostrum advertised to the public, and having no time to make an analysis, I consulted five physicians in order to reach a necessary decision. All five physicians told me that the preparation contained a dangerous amount of cocaine in it; that it was well known for containing that ingredient. I made my decision—only to find that I had made a wrong decision. The preparation contained not a trace of coca or cocaine and never had. *Gentlemen, these physicians did not know. But they should have known, or else not have said what they did.*

And so I might go on; not isolated cases, not a

case here and a case there, but a condition that is dangerously general.

Now, what is the result? The physicians are doing precisely what we are asking the people not to do: not to use these "patent medicines," because they do not know what they contain. What effectiveness can I make to such an argument when people write to me by the score citing instances of revealed ignorance on the part of the physician of the preparation which he prescribes, and rightly say to me, "How do you explain this?"

Can I explain it, gentlemen?

Dr. Jacobi calls this practice not far from criminal, and I would rather have him say it than say it myself. But it is a mighty serious condition, and nothing confronts us laymen in our fight so insurmountably as this argument that can be advanced against the medical profession.

We are trying to separate the public from the nostrum, and have in a measure succeeded. But what are you doing? Now, let me bring this question home to you—home to the physicians of Philadelphia. Are you aware of the fact that this practice of prescribing nostrums has so insidiously grown on you that while in 1905 an examination of several thousand prescriptions written by Philadelphia physicians showed 41 per cent to call for "proprietarys" this year, so far, the average shows 47 per cent? Are you going to do more and more each year what we are asking the people not to do? If you are going to prescribe "patent medicines," why should the layman pay your fee as a physician in addition to the cost of the medicine which he can buy himself? We are preaching to the public to stop the nefarious habit of self doctoring, but physicians, by such methods as these, are driving people to doctor themselves, driving them to the quacks and charlatans. There is no question that the whole practice has grown out of thoughtlessness. But has not this thoughtlessness gone far enough?

Evidently, gentlemen, the Council on Pharmacy and Chemistry of your national association was created none too soon. But even without access to the analyses of the council, the physician has no excuse. Opportunities are open to him to learn the ingredients of the medicines he prescribes, and if he has no time to find out he has no right to prescribe what he does not know.

And so, gentlemen, you who should be with us laymen in our efforts to stamp out this evil, are not only making our fight the harder, but you are actually hindering us. We look to you for help, as I think you will agree we have a right to do in our effort, and what do we get from you?

Unctuous words, but unclean hands.

Now, I ask: Is this fair? Is it playing the game, gentlemen?

You are here tonight to discuss the question of the suppression of quackery, but it seems to me you have chosen the wrong topic. Your question should be the suppression of the physician in his aid of quackery.

A FEW WORDS ON OPSONINS*

By LANGLEY PORTER, M. D., San Francisco.

I have been asked by the committee in charge of program to present a paper on opsonic index and its relation to medicine. The paper must of necessity be but a compilation drawn from other men's work. I am chiefly indebted to my friend, Dr. G. W. Ross, for any knowledge I have on the subject. As this association exists essentially for clinical demonstrations, and as I am not doing the opsonic work myself at present, Dr. Mace has kindly consented to show you the various steps in the technic, so I will not touch on this side of the subject.

The fact that defense of the body against bacterial attack is a complicated and multiple one has long been known to pathologists. Erlich put forward the theory that where bacterial intoxications take place, the toxins of the invading organisms must enter into chemical combination with the cells of the different tissues. There are many toxins which have specific selective power; some on nerve, some on muscle, and undoubtedly some, which are less well known, such as poisons of mumps and leukemia, on lymphatic and gland tissues. While Erlich's theory will explain the processes of immunity to toxins such as eventuate in diphtheria and tetanus, it does not explain how different bacterial invasions are combatted. We know that the cell poisons produce in the body a number of antibodies which Wright has called antitropines, and these are protective each against the poison which produces it. Among the antitropines we have the well-known diphtheretic antitoxin and the bodies which cause the agglutination of bacilli on which the Widal reaction is based; others called precipitins which throw out of solution toxins in combination with foreign albumens; the lysins, which have the effect of dissolving invading organisms; and last, the opsonins, of which we are to speak more fully.

Metchnikoff for many years, in fact, since about 1890, has been maintaining that immunity in all its forms is entirely dependent upon the phagocytic power of the white blood corpuscles. Erlich, while accepting the fact that the phagocyte plays some role in the production of immunity, has also been strong in urging that it was but a minor one. For many years the Russian pathologist claimed that the white cell was the only factor in the phagocytic process and the only agent in the process of immunity, but the work done by Erlich and by his own followers has forced him to admit the presence of antitropic substances in the body fluids, although he believes that these antitropines are secretions or excretions of the white cells.

In 1903 A. W. Wright, who was then the Chief of the Pathological Laboratory of the British Army, and Douglass, presented to the Royal Society a paper in which they showed the following facts: First, that the white blood corpuscles, free from all serum, had no power to ingest staphylococci. Second, that the addition of a small amount of blood serum to the staphylococci caused the bacilli to be readily ingested by the leukocytes. Third,

that the substance in the blood serum that enabled this phagocytosis to take place was thermo-labile and became impotent on being heated 60 degrees C. Fourth, that the serum did not act upon the white blood cells, but upon the streptococci. Fifth, that the plasma and the blood serum acted equally well; and they concluded from these experiments that the power of phagocytosis rested not in the white corpuscle, but in the reaction of the substance found in the serum to the invading organism. In their communication to the Royal Society they chose to call this substance opsonin from the Greek word signifying "I prepare food for," with the idea that the name should be illustrative of the power this substance has of making the organism fit for ingestion by the leukocyte.

The first work, as I have said, was done on staphylococci, and it was shown that in cases of general staphylococcic infection, furunculosis, syphilis, carbuncle, and in fact any local staphylococcic infection, that the amount of opsonin present was markedly diminished. The plan was devised of comparing the power of phagocytosis in healthy corpuscles from the same individual when activated respectively by a pool of serum from several healthy persons and serum from an individual with a staphylococcic infection. The average number of staphylococci ingested by healthy leukocytes when activated by healthy serum from a large number of individuals was found to vary very little, provided always that the conditions of the experiment were the same. This ingestion of staphylococci was taken as the standard and the ingestion of staphylococci by the same corpuscles when activated by the serum of an infected individual was compared with it, and the resulting quotient represented the opsonic power of the blood of that individual for the staphylococci. This quotient is what is known as the opsonic index. Wright developed his methods by working with staphylococcus because it is the easiest of all the organisms to deal with under the circumstances demanded. But he soon carried the work further and showed that the opsonins are produced in the blood by the invasion of other organisms. In fact, the only ordinary pathogenic organism, I believe, for which he has not been able to find an opsonin is the diphtheria bacillus.

The most important application, so far, of this method of determining resistance of the body to infection, is in relation to tubercular infection.

Wright and Douglas, Bullock and Atkin, Ross and Freeman, and within the last year many workers in this country, especially Hektoen and Potter, have busied themselves with developing a method of making these determinations applicable to tubercular patients.

The technical difficulties are great. There is great difficulty in getting proper cultures of the tubercle bacillus. There is difficulty when one has the proper culture in preparing an emulsion of the tubercle bacillus which will not clump, and much ingenuity has been exercised in overcoming this.

Curiously enough, in tuberculosis the opsonic index may be either very high or very low, de-

* Read at the Polyclinic Gathering.

pending upon whether the infection is local or systemic. Local tuberculosis such as lupus, glands, early tuberculosis of the lungs, early tuberculosis of the bone, show a low index. The late tuberculosis of the lung shows a variable index, sometimes as high as two or three times the normal; at others equally low. The practical point in all this work lies in the relation of the opsonins to treatment. Wright and Ross and Bullock, treating large numbers of cases of different kinds of tubercular infections by inoculation methods controlled by opsonin determinations, have had much success. The same is true of Hollister in this country.

The idea of treatment is to increase the opsonins in the patient's blood so that the bacteria meeting these will become an easy prey to the white cells which have heretofore not been able properly to perform their work of phagocytosis. The method has been especially successful in cases of lupus. The plan is as follows:

The patient's opsonic index is determined: he is then given a measured amount of a vaccine composed of the dead and sterilized bodies of tubercle bacillus. These dead cultures are readily obtainable in the market in the form of Koch's tuberculin R. You will say that Koch's tuberculin antedates the opsonic theory and vaccinations with tuberculin R., have often proven disastrous to patients; this is very true, but any very powerful drug used empirically may become destructive to patients. The great value of Wright's method is that he is enabled to measure the effects of the dose and to give the tuberculin in a rational as opposed to an empirical manner. Having determined the opsonic index of his patient, he inoculates not to exceed 1-1000, of a milligram of dry tuberculin and then he takes the opsonic index of that patient to the tubercle bacillus daily.

It is the invariable result of the first inoculation that the opsonic content drops very markedly and remains low for some time, varying with the different type of case and with the individual. The drop in the opsonic content Wright calls the negative phase, but this within a short time rises and goes well above the normal. Now if while the patient's opsonins are rapidly descending, a second injection is given there will be a still further decrease in the opsonic power and a further injection still may overwhelm the patient and make him unable to fight the invading process. But if the opsonic index is watched and the second inoculation is given while the opsonic index is rising above normal, there will be a still greater rise and the defensive power will become much increased and the patient as a rule will go on to a better condition. The value of the opsonic method is here evident as a control to the inoculation.

From the work that is being done we are coming to learn that not only tubercular and staphylococci infections may be combatted, but a case Ross has recorded of a chronic empyema due to pneumococcus which cleared up promptly under vaccinations with dead pneumococci, controlled by opsonic determina-

tions to pneumococci, shows that this method will be valuable in localized pneumo-infections. Other work done leads us to hope that the chronic joint infections due to invasions by Neiser's coccus may also soon be efficiently treated.

In fact, there is every reason to hope that in vaccination controlled by opsonin determinations we have a therapeutic method that will give us power against many of the infections over which we now have no control. Besides the therapeutic gain, the diagnostic value is great as evidenced by a case of sycosis Wright reports in which, when he found the opsonic index high for staphylococcus, he tried it for tubercle and, finding that index low, was enabled to diagnose a tubercular sycosis and to cure it with tuberculin. Ross' case of pneumococcus infection is another, and I have no doubt cases of hip joint disease will be earlier and more positively diagnosed because of our ability to determine this index. It has already been shown that children of tubercular mothers have on the average an index but half that of those whose mothers are not infected, and that the index of bottle-fed infants against a number of bacteria is less than that of the breast-fed. And so we have explained rationally a well-known clinical fact. Undoubtedly we will soon test out the effect of many remedies on the activating power of the serum. It will be interesting to know whether the colloid metals gain their potency as agents in septicemia by a power to increase the opsonic activity of the serum. So high an authority as Welch has proclaimed Wright's discovery the greatest in medicine since Koch gave us knowledge of the tubercle bacilli and the means to isolate and study them. Personally I think that he understates the importance of the work, and that we have in the method of Wright and Douglas a technic that will overturn much of our therapy and supplant it with a method of treatment at once rational and efficient.

OPSONIC TECHNIC.*

By LEWIS SAYNE MACE, M. D., San Francisco.

The method of estimating the opsonic content of blood serum elaborated by A. E. Wright of London is briefly as follows:

The washed white blood cells, or leukocyte cream, is prepared by drawing ten or fifteen drops of blood from a normal individual into a small centrifuge tube filled with a 1.5 per cent. sodium citrate solution in .85 per cent. sodium chloride, shaking thoroughly and centrifuging about five minutes. The citrate solution is pipetted off and .85 per cent. sodium chloride added, the tube thoroughly shaken and again centrifuged. The red cells, being heavier, are thrown to the bottom of the tube and on top of these the leukocytes are seen as a thin gray film. These washed corpuscles are pipetted off and placed in a watch glass.

The bacterial emulsion in the case of tubercle bacilli is made by removing the growth from a culture with a platinum loop and thoroughly grinding

* Read at the Polyclinic Gathering.

up in a mortar moistened with 0.1 per cent. sodium chloride solution, drops of the sodium chloride solution are added from time to time and the grinding continued until the clumps of bacilli are broken up as thoroughly as possible. The emulsion is then placed in a test tube and heated to 100 degrees for five minutes and sealed until ready for use.

When preparing for an estimation, the tube containing the emulsion is thoroughly shaken and centrifuged a few minutes to thrown down the clumps. The upper layer, which should be quite opalescent, is pipetted off and placed in a watch glass.

The serum to be tested is obtained by making a light stab with a sharp capillary glass tube in the top of a finger near the nail. The blood which flows readily, is collected in a glass capsule having curved capillary ends, which are sealed when the capsule is about two-thirds filled with blood. It is then allowed to coagulate and hung by its curved arm over the ring of the centrifuge and revolved until the clear serum has collected above the clot. The top is now broken off, the serum removed with a capillary pipette and placed in a third watch glass properly marked. For the control test a glass capsule is filled in the same way with blood of several normal individuals and centrifuged as before. The blood of a number of normal people is used as a control to correct the error of individual variation in opsonic content.

The three preparations, washed white corpuscles, bacterial emulsion and serum, are measured and mixed with a capillary pipette having a mark about two centimeters from the end. The blood cells are drawn up to the mark, then a bubble of air is allowed to enter the tube and the same volume of bacterial emulsion drawn in, then another space of air is allowed to enter the tube and an equal volume of the serum to be tested drawn up and the three volumes carefully mixed by drawing up and down several times upon a slide. Finally the mixture is drawn into a pipette, the end of which is sealed in the flame and placed in the incubator with the control tube, which is prepared in the same way at the same time. After incubating fifteen or twenty minutes, the tube end is broken off and the mixture again mixed by drawing up and down on a slide. Two slides are prepared by smearing as in preparing blood smears, except that the preparation is made much thicker and allowed to dry slowly in the air. In this way the leukocytes can easily be found collected at the outer edge of the smear and counted. The slides are fixed in saturated bichloride of mercury for one minute and stained in carbofuchsin, destained in dilute sulphuric acid, and counterstained in methylene blue.

In counting, it is necessary to count only polynuclear leukocytes and to count only those in which the nucleus lies flat. In this way the error of counting is reduced to a minimum.

The best emulsion of tubercle bacilli is on which in the ordinary time of incubation shows one or two bacilli per cell and which does not contain clumps of bacilli. The length of time necessary for grind-

ing and centrifuging each culture of tubercle bacilli used must be ascertained by practice tests before beginning estimation.

DISCUSSION OF PAPERS BY DRs. PORTER AND MACE.

Dr. Evans—I think we ought to congratulate Dr. Mace on the degree to which he has perfected this technic. No one knows, except those who have tried it, the discouragements met with in this work. There are few points in the technic where he differs from Wright. For instance, the last part of his demonstration regarding the collection of the blood. I should imagine that he would be very apt to burn the blood in this way. Dr. Wright on the contrary, after allowing the blood to run into the capsule, heats the empty portion of it before sealing that end. Then the area cooling the blood is drawn from the capsular end. This work is very fascinating, and anyone who has had the privilege of seeing Wright at work in his laboratory is impressed with the seriousness of the man and with the fact that his demonstrations have been very valuable contributions to modern scientific medicine. It would be impossible for such a one to fail to be convinced that he has demonstrated the existence of these bacterio-tropical substances in the blood serum. It is particularly on the lines of tuberculosis that this work has assumed importance, bringing forth as it does acute indications for exact dosage of tuberculin or other culture products used therapeutically. By following the opsonic curve of individuals under treatment, Wright has demonstrated the fact that much smaller doses of tuberculin are indicated than had been used by those who have relied on clinical evidence alone. A good deal of the work done in London both by Wright and Bullock, who is bacteriologist at the London Hospital, and is an ardent supporter of this work, has been done in the treatment of lupus. Their results with tuberculin in this disease have convinced them that treatment with Finsen light, X-ray and other irritating conditions are of value only by reason of the fact that they produce a hyperemia of the affected part, thereby flooding the lesion with blood rich in opsonic content. I recall one case of a girl with lupus, under Dr. Bullock's treatment, who had a very persistent lesion in spite of her opsonic index having been raised above normal as the result of the use of tuberculin. An ordinary old-fashioned poultice was sufficient to flood this lesion with opsonines, thereby causing very rapid recovery, when the fact was appreciated that hyperemia of the lesion was all that was necessary.

The practical difficulty in the way of the use of this valuable discovery in private practice is the difficulty, the result of the complexity of technic, and it is to be regretted that until this technic is very much simplified the opsonic work of Wright can not be placed in daily use by the busy clinician.

Dr. Porter—When you have a patient in whom you suspect tuberculosis, a low or variable opsonic index will give you confirmatory evidence. Wright has especially called attention to the fact that at times when a number of joints are affected, gentle massage of a single joint will cause not only that joint but other affected joints to improve. He attributes this to the fact that the massage has inoculated the patient to a slight degree. It is of some interest to know that it has been shown recently by Ross that an infant born of a tubercular mother has an opsonic index about equal to the mother's, which gives us an explanation why tuberculosis has been considered hereditary.

Amburg has shown that a bottle-fed baby has an opsonic index to all infections lower by far than a breast-fed baby. These facts explain a great deal

that heretofore has been conjectural. As to the statement of Dr. Evans that most work has been done on lupus, there has been a considerable amount done on lupus but an equal amount of research by Ross and others has been done for diseases of the chest in late and early tuberculosis, in which it has been shown that in tuberculosis of the lungs and in early disease of the bones we do get very definite and positive results, both diagnostic and therapeutic.

THE NAUHEIM TREATMENT OF ACUTE AND CHRONIC HEART FAILURE.

By PHILIP KING BROWN, M. D., San Francisco.

The Nauheim bath in connection with graduated and resisted movements has won a definite place in the treatment of chronic heart failure, and each year sees a wide range of heart cases favorably influenced by some modification of this system. The reproduction of the essential components of the bath in the form of easily-handled salts has permitted the bath to be taken to the patient, instead of the patient having to undergo the frequently exhausting journey to Nauheim, and the effort even when comfortably housed there of getting to the bath houses for treatment. It is of the artificial Nauheim bath that I wish to speak chiefly.

There are at Nauheim three principal springs used in the bath treatment, differing in chemical composition and in temperature. The ones most used are known as No. 7, No. 12 and No. 14. All are alkaline, effervescing springs of a temperature of 87 degrees to 92 degrees, and it is the active ingredients of these springs that most of the artificial Nauheim bath products seek to reproduce. The common form that most of these reproductions take, is illustrated by several of those that are extensively advertised, and which are merely two-pound packages of bicarbonate of soda and $1\frac{3}{4}$ pounds of acid sodium sulphate put up in the form of flat, round cakes and wrapped in oiled paper or tinfoil, or both. This protects them somewhat from moisture and from the action of the soda. The objections to this form of the bath are, that the chlorides, which form an important part of the ingredients, are omitted. The reasons are simple. The potassium and magnesium chlorides are expensive; the seven or eight pounds of sodium chloride which are necessary are very heavy, and the calcium chloride has so strong an affinity for water that it is handled with difficulty, besides being very irritating to the skin when handled in its solid form.

At Nauheim the calcium salt, known as "mutter lauge" is not a natural ingredient of any of the springs in sufficient quantity to be effective in the bath, but is added to the bath after it is drawn. It is a by-product of a neighboring chemical works, and is used because of its stimulating effect on the skin, augmenting and prolonging the effect of the CO_2 effervescence. Its import as a part of the bath is reflected by the bath attendants and patients alike, the latter often paying a few pennies for a more generous measure of the fluid. A further objection to the artificial

bath lies in the poor way the acid sodium sulphate is packed. Unless it is kept in a dry place it is bound to absorb moisture and crumble, and the free sulphuric acid escapes from the inadequate covering, leaving the cakes too weak to react later in the soda solution.

A use of two of the different forms of the bath for a year led me, on account of unsatisfactory results, to try the production of gas by releasing acid from bottles in a soda solution. This gave a very uneven effervescence, and it was hard to regulate it. Besides, the acid was hard to handle. At this point, I enlisted the services of R. R. Rogers, then professor of chemistry at Cooper Medical College, and we began a series of experiments to obtain more reliable acid sulphate and a means of handling it and the calcium chloride. To Mr. Rogers is due the credit of devising a paraffined paper box, the cover of which is put on after the acid sulphate or calcium chloride is put in, and while the paraffine is still warm. This enables it to be sealed in air-tight, and it requires no handling when the bath is prepared, for each box contains just enough for one bath. The acid sodium sulphate which we used at first was a waste product obtained in the manufacture of sulphuric acid by the old process of boiling. Before all the H_2SO_4 has been removed, a point is reached when it is no longer profitable to continue the extraction, and at this point the product has about enough acid component to serve our purpose. It had the advantage or disadvantage of containing a good deal of iron, as the boiling is done in iron kettles, and this precipitates out in alkaline solution in the form of a heavy, rust-colored sediment. In this form it is a component of certain of the springs at Nauheim, but probably it has no advantage, and it is certainly disturbing from the point of view of cleanliness.

To obtain an acid sulphate free from iron, it was necessary to boil Glauber salts with sulphuric acid. A proper proportion can be estimated readily, and the end product when packed in the paraffine boxes will keep indefinitely without change. The proper proportion of the chlorides of potassium and magnesium was obtained in a sea salt in which the potassium and magnesium chloride existed as impurities. With the materials properly packed, it is a very simple matter to grade the strength of baths, as is desirable in the beginning with bad cases.

The advantages of the whole treatment at Nauheim are very great in a class of patients with nervous heart troubles who are better off far removed from social and business responsibilities. The hotels and private hospitals there are comfortable, some of them even quite luxurious, and it is certainly true that it is easier for some patients to do what every one about them is doing. Against this advantage is the distance to Nauheim, making it prohibitive in a large range of acute cases and in advanced chronic cases still in condition to be benefited by the treatment; the closing of the baths in winter; the effort of reaching the baths from the hotels, even when wheel chairs are used; and the lack of supervision in the bath, for the patient is turned over to an ordinary

bath attendant, with a prescription on his bath card from the doctor for a certain bath of a given temperature for a definite time. In my experience so much depends on the way the bath is given, and so much can be done by the attendant to make the bath effective, that I am convinced the patient needs supervision while in the bath. I have had treatments at Nauheim and at home and have had them given for me here by a number of supposedly trained people, and it has been a matter of astonishment to me how much difference there is in the result when the same patient is handled well or badly in the bath. For this reason I never encourage the Nauheim treatment except under favorable conditions and administered by a skilled nurse who understands the importance of watchfulness and the effects which the bath and movements are expected to produce. Under proper conditions, treatments may be given to patients even at the bedside, using a folding rubber tub filled by a hose from the nearest running water. The patient is lifted by two attendants and lowered easily into the tub, a rubber air pillow allowing the head to rest comfortably. This caution is not necessary except in bad cases or with the failing hearts of those with acute infectious diseases.

The cases best fitted for Nauheim treatments are those in which the heart muscle acts insufficiently, either from arterio-sclerosis with changes in the muscle, or dilatation, or poor blood supply from anemia, or poisoning, acute or chronic, particularly after severe infectious diseases or tobacco poisoning, and fatty changes of moderate degree. It has been supposed that fever from any source was a contra-indication for the bath, and in the writings of most advocates of the treatment this statement is universally repeated. It seemed to me, however, that the effect of the bath, which is to slow and deepen the respiration, slow the pulse, increase the volume of blood in the peripheral arteries, raise the blood pressure, increase the urine, and finally to quiet nervousness and restlessness, were just the things one wanted to bring about in many cases where the heart was weak as the result of toxic and febrile causes. Through the kindness of Dr. Ainsworth and the staff of the Southern Pacific Hospital I had the opportunity of trying the effects of the bath on a series of fifteen cases of pneumonia and two typhoids. The results are published elsewhere, and it is sufficient to say that the results were so encouraging that I hope for further opportunity for trying the treatment. It effectually settled the point that there is no risk in giving the bath to patients with temperatures even above 104 degrees, and in all such cases the temperature was reduced about two or three degrees for several hours. Blood pressure determinations showed a constant rise of about 10mm., which was also appreciable for several hours. Slight hemorrhage from the bowel occurred in the two typhoid cases—in one after six baths, and the other after ten—a further evidence of the increased blood pressure, and a sharp warning of this danger in typhoid from the Nauheim treatment. I shall not consider this class of cases fur-

ther, as it is my intention to go into it more fully in the near future.

At Nauheim the patient is supposed to see his physician daily, and after the initial examination he is given a card on which the temperature, duration and kind of bath he is to take are indicated. At each visit his card is again inscribed with the bath data for the next treatment. The movements are given generally some time after the bath, no special system being followed, the convenience of the operator regulating it in most cases. Some of the physicians prescribe no movements, and in conversation with several, and in their printed articles, it is difficult to get much information about their estimate of the value of the movements. To the Schotts belongs the chief credit of developing this auxiliary system of strengthening the heart muscle. The principle back of it depends upon the fact that the heart meets a slight increase in the amount of work put upon it by a more forceful and slower contraction, continuing from a number of seconds to almost a minute. If this effort put upon it is systematically repeated, the heart will meet it by a steady continuance of the slower and stronger contraction. The movements are similar to those used in ordinary gymnastics, the same movement never being repeated twice in succession by the same muscles, and generally they are made first on one side, then on the other. The movement is slow, and is guided by the hand of the person giving the treatment. This guidance is gradually replaced by a certain amount of resistance to the patient's efforts. The resistance is increased or diminished to meet the indications shown by the action of the heart. The dilation of the peripheral vessels brought about by the bath, and the improved heart action, make it usually best to follow the bath after an hour's rest by the movements. This is by no means an arbitrary rule, for certain cases are better affected by the movements given some time before the bath; it may even be wise to give them as nearly as possible half-way between baths. The effect of the movements may be tested by any one in a case where the pulse is rapid, except possibly a case of exophthalmic goitre. In my experience the movements are useful in slowing as well as strengthening the pulse. The problem with heart cases is simply adapting the principle to the individual case.

For a full consideration of the technic of the bath and movements I would refer one to Babcock's book on heart diseases, Thorne's work on the Nauheim treatment, and Groedel's monograph on the same subject.

The following cases serve to illustrate the effect of the treatment on various types of heart cases:

Case 1, P. K. B., aged 36, palpitation and intermission, following severe diphtheria, augmented by the use of tobacco. At the time baths were begun tobacco had not been used for a month. The heart, nevertheless, was omitting every third or fourth beat and the rate was between ninety and one hundred. Blood pressure, one hundred and twenty with Stanton machine. Digitalis had been tried, with the effect of steadying the heart somewhat, but its withdrawal was followed by a return of the rapid action

and intermission. Two courses of Nauheim baths were given; a ten days' intermission between them. Twenty baths in each course. In the first series resisted movements followed the baths twenty minutes. In the second series they preceded the bath. After the first five baths the heart would frequently beat fifty or sixty times without any intermission. The rate for some hours after treatment fell 15 to 20 beats, reaching normal at the end of the fifth beat. From that time on, pulse varied from 72 to 82, being brought down sometimes to 68 after treatment. The second series of baths was carried out in order to study the effect of movements given before the baths. In this particular instance, it was shown definitely that resisted movements had quite the same effect as the bath, but upon evenings that they were not followed by the bath, the effect was not as lasting by several hours.

Two years have passed since the first treatments and during that time, though smoking has been resumed in moderation, the heart has never been intermittent. The second series of baths showed a uniform rise of 10 to 12 mm. in the blood pressure after the bath. The heart rate, which had never been much above 80, after the first course, was improved, so that it remained most of the time in the seventies. The exhaustion after work which preceded the first baths and which had begun to show itself again, was relieved.

Case 2. G. B., aged 47. History of excessive use of alcohol and tobacco, long-continued sedentary habits, obesity, unrecognized pleural effusion after pneumonia, requiring subsequent operation for removal. Heart rhythm fetal in character. Extreme pain and dyspnoea on slight exertion. Diagnosis, fatty infiltration of heart. The effect of the baths is indicated on the accompanying chart, the diagram showing the pulse before and after treatment. Resisted movements were given before the bath. Patient, a year and a half later, without further treatment, is very comfortable. On the Von Norden anti-obesity diet he lost 40 pounds.

Case 3. J. W. W., aged 64, suffering with advanced myocarditis, general arteriosclerosis, subsequently developing intermittent claudication, and finally died of general cerebro-spinal softening manifested as a progressive paralysis. Under my care he had one severe attack of tachycardia. Following this the pulse, which had been in the nineties before, ranged above 100 despite the administration of small doses of digitalis. Nitroglycerin with it had no effect on the pulse. The administration of even moderate doses of digitalis seemed to make the pulse worse, as indicated by the chart. The result of the Nauheim treatment is indicated in this case by the morning and evening pulse, the records of the immediate effect upon the pulse having been destroyed. The patient, who had been bed-ridden for more than two months, was sitting up in two weeks and walking in less than three. Overdoing led to an acute return of symptoms a month later and the symptoms of softening followed rapidly. The case is presented as illustrating that even in extremely advanced myocarditis, benefit can be obtained from the baths, although in such cases they must be given with extreme care.

Case 4. Mrs. M. G., aged 66. History somewhat the same as Case 3, except for the addition of cardiac pain on any exertion. The chart here indicates the rapid effect of the bath, the progressive benefit during the ten days in bed, and the sustaining of the better pulse during the period of activity that followed. This patient was seen on April 16, 1906, one year after the treatments, with a return of the pain and rapid heart action. Treatment was prevented by the earthquake. She died two weeks later of angina before treatment could be begun.

Case 5. Mrs. M., aged 57. Illustrates simply the greater benefit that followed the giving of resisted

movements twelve hours after the bath. The first part of the chart indicates the pulse right after the treatments, in which the movements immediately preceded the bath. The case was one of advanced myocarditis, which had been benefited previously by treatments similar to the first of the series indicated in this chart. One year later, patient's pulse reached 140 in another attack of dilatation. Twelve baths were given, with the extremely interesting result indicated on her chart.

Case 6. Mr. C., aged 44. Arteriosclerosis, locomotor ataxia, palpitation, extremely poor heart tones. In this case the patient was given Frankel movements for a bad ataxia instead of resisted movements. These movements were much more taxing than resisted movements. The chart shows the effect of the movements, judiciously given, on the pulse. In almost every instance they lowered the pulse, which was still further lowered by the bath.

This form of treatment of locomotor ataxia I have given to a number of patients, and while the Frankel movements need no further commending from me, I wish to add that the treatment combined with the bath has served an excellent purpose in relieving a great many of the symptoms of this disorder. I refer particularly to the spasmodic muscular contractions, which are sometimes very painful. It seems likely that the improved circulation is responsible for the benefit.

Case 7. J. F., aged 57. Advanced case of arteriosclerosis with extensive changes in the heart muscles and some renal changes; marked irregularity in the rate and force of pulse; frequently 20 beats in 100 not registered at the wrist. At the time I saw this patient he had been four months in bed, on all manner of heart stimulants, and had had four attacks of acute dilatation with delirium cordis. In the last of these attacks he fell into my hands. At that time his pulse was 120 to 130 when counted with a stethoscope; about 90 at the wrist. The early record of the baths I regret I did not keep. This patient, now nearly a year later, is able to be about and to take light exercise. The heart is still extremely irregular in rate, but the muscular insufficiency is not accompanied by any subjective symptoms. In this case, as in a good many others, the baths were frequently followed by an hour or two of quiet sleep, and for the first time the patient was able to do without hypnotics. The use of opium in such cases I can not commend too highly, particularly in the beginning of attacks that result from over-effort of the heart.

Case 8. Mrs. E. S. H., aged 67. Was seen after a year of intermittent rest and drug treatment for paroxysmal tachycardia due to sclerosis of the aortic arch and aggravated by emotional and gastric disturbances. This patient had twenty baths, not always with the desired result, owing to indiscretions of diet and to emotional disturbances that I could not control. An attack of tachycardia, lasting twenty-four hours, enabled me to try the bath as a means of shortening it. I had given her in one previous attack digitalis and nitroglycerin, without perceptibly influencing the attack, which lasted two days. The attack treated by the bath was shorter than the previous one, but the bath itself seemed to increase the pulse action slightly. Two things were interesting in the case. First, the doubling of the pulse in tachycardia, a fact which I also observed in one other case where the pulse raised from 70 to 140 in one attack of fifteen minutes' duration, and to 280 in an attack an hour or two later. This doubling of the pulse has been called attention to by Hewlett. The second interesting observation is that, although the patient was having two or three of these attacks a month prior to the baths, she has had only one in the five months since. This I attribute largely, however, to more attention paid to the diet.

Case 9. D., aged 40, laborer. Admitted to the

hospital February 15, 1906, 48 hours after a severe chill followed by pain in the left nipple region and a cough with expectoration; he had had no care for two days; loss of appetite, and had eaten but little. Previous history negative; smokes and drinks moderately.

Patient is a strongly-built man, broad, thick chest. Heart condition normal, urine normal. Temperature 102 degrees. Pulse, 100. Respiration, 30. Distinct signs of pneumonia of left side, involving both lobes. Pulse weak and heart tones, though clear, rather weak. Blood pressure, 102. Patient given Nauheim bath, full strength, 15 minutes' duration. He had a crisis on the fourth day. Was given two hypodermics of citrate of caffeine, owing to the feebleness of his pulse on his entrance. Except for this no medicine was given him.

Case 10. D. P., entered the hospital April 4, from S. P. Tunnel No. 1, with the following history: Attack of pleurisy 1904. Patient drinks occasionally to great excess; smokes constantly. Had been working in the tunnel for some months, when on April 1, he was seized with a violent chill; accompanying this was a pain in the left chest, which was increased by coughing; he had a very bad headache and no appetite. He received no attention whatever until four days later, when he was admitted to the Southern Pacific Hospital at 9:30 p. m. At this time his bowels had not moved for two days; tongue was coated. Temperature, 101 degrees; respiration, 30; pulse, 100. There was distinct consolidation of the left lower lobe. He was given a pneumonia jacket and put to bed; mustard and flaxseed poultice to chest. I examined patient the morning of April 7. At this time pulse was 106; blood-pressure, 107; respiration, 40; temperature, 103 degrees. There was a consolidation of the whole left side, which became more apparent in the upper lobe the next morning. His heart condition at this time was fairly good, but as it was the seventh day of the disease and no crisis had occurred, the patient was given a Nauheim bath. His blood pressure the day after the first bath had fallen to 100. The nervous disturbances of the first bath were probably the cause of the increase of fever just prior to the bath. The patient was very comfortable following the bath, and was never at any time thereafter in any critical condition, although the crisis did not occur until the twelfth day. The chart indicates one interesting fact—that from the second day of the bath the pulse and respiration fell steadily. The temperature was influenced for from four to six hours by the bath, and the blood pressure rose steadily.

Conclusions: The Nauheim bath, properly given, with resisted movements, has a distinct place in the treatment of acute and chronic heart failure.

It is of advantage to simplify the treatment, and for this reason it is best given in the patient's home where conditions are favorable.

This admits further of the use of the bath in a much wider range of cases than were heretofore considered possible, particular emphasis being laid on the type of cases represented by cases 9 and 10, both treated for the heart condition of pneumonia by this means.

In spite of the peripheral vascular dilation, the blood pressure is almost invariably raised by the bath in uncomplicated cases of muscular heart weakness. Where the pressure is already high from arterial and renal changes, it is generally the case that the pressure is unchanged. It may even fall slightly. (Cases 6 and 8.)

ALCOHOL: THE EFFECT OF ITS USE AND ABUSE.

By ANDREW W. HOISHOLT, Assistant Physician, State Hospital, Stockton, Cal.

Alcohol, chemically known as ethyl-alcohol, is a member of a group of oxygen derivatives of the hydrocarbons and is closely related physiologically as well as pharmacologically to ether, chloroform, chloral, etc. It has been classified among the stimulants; some have considered it a nutriment, while it has been spoken of by (1) Rubner as a refreshment ("erfrischungsmittel"), and still others have placed it as "genussmittel" (relish), in line with coffee, tea, spices, etc. If alcohol, however, is to be regarded as belonging to the last-mentioned category, it must be taken in certain limited quantities, inasmuch as a daily use of more than 10 to 20 grm. (2½ to 5 drms.) may do harm; hence a daily use, for instance, of a pint of lager beer, which contains 12 to 15 grms. of alcohol, could hardly be considered harmless.

(2) Edwin Faust and Trautmann have proved by careful investigations that morphin and veronal can act as nutriments; there seems, therefore, no more justification for the administration in general practice of alcohol as a nutriment than there is for the use of morphin or veronal for this purpose. The value of alcohol as a nutriment has been expressed in a few rather dramatic words by Prof. Atwater, of Wesleyan University, Middletown, Connecticut, who says, "Alcohol is a nutriment, alcohol is a poor nutriment, alcohol is a damned nutriment." Alcohol as a refreshment does, like tobacco, have the effect of tiding man over the afflictions and torments of life but the trouble is that alcohol, even as a refreshment, is attended with grave dangers to many people because of the difficulty of finding "the suitable dose"—if it is left to the individual to determine this for himself.

The use of alcohol as a medicine has been recommended in conditions of collapse, in typhoid fever, pneumonia, or other cases of heart-failure, in acute and chronic infectious diseases, in loss of appetite from various causes, in certain nervous conditions as sleeplessness, mental depression, attacks of fear or fright, and in certain neurasthenic conditions. Among these various indications it would seem that alcohol in the form of wine acts favorably where the chief object is to maintain life, but it has not yet been fully determined whether Binz is correct when he claims that alcohol increases the amount of the exhaled air and elevates the blood pressure when it is given in moderate quantity (about 2 to 2½ oz. of sherry or 10-15 grm. alcohol). It would also seem that alcohol in doses of 5-10 grms. at each meal increases the appetite for food and stimulates the gastric secretion, except in cases of chronic diseases like tuberculosis. In cases of weakness and over-fatigue of the nervous system, however, Eduart Hirt says there

*Paper read at the annual meeting of the California Northern District Medical Society held at Sacramento November 13, 1906.

is nothing which to such a degree tends to further weaken one as alcohol. When alcohol is given in daily doses larger than those mentioned it has deleterious effects, and with the increase of the dose acts as a narcotic poison the effect of which when long continued is disturbance in the function and a change in the structure of various organs of the body, including those of the nervous system, influencing particularly the psychic life of the individual.

"Who hath woe? Who hath sorrow? Who hath contentions? Who hath babbling? Who hath wounds without cause? Who hath redness of eyes? They that tarry long at the wine; they that go to seek mixed wine. Look not thou upon the wine when it is red, when it giveth his color in the cup, when it moveth itself aright. At the last it biteth like a serpent and stingeth like an adder." (Solomon's Proverbs, chap. xxiii, v. 29-32.) In these few sentences Solomon has given us a very good picture of alcoholic intoxication, which, though 3,000 years old, may even be interpreted to include the symptoms of alcohol-neuritis of the drunkard.

(3) Kraepelin describes the symptoms of alcoholic intoxication in the ordinary state of drunkenness in part as follows: "A difficulty of understanding—*i. e.*, an impediment to the conception, fixing and elaboration of external impressions—a narrowness in the process of thought, an increase of the psychomotor irritability with diminution of physical strength, a disturbance in the finer control over the movements, an excitation of the motor speech—impulses leading to the first traces of flight of ideas and an atactic disturbance in speech, handwriting and psychomotor acts in general, and finally to a marked paralysis. With the beginning of the intoxication a marked feeling of comfort with elatedness develops, which soon changes into an increased emotional irritability with outbursts of passion and suppression of the higher moral feelings, leading to exhibitions of moral depravity." The general course of the intoxication is influenced in different ways by the personal peculiarities. In some cases an appearance of fatigue, drowsiness and motor paralysis sets in early without marked emotional irritability; in others excitability develops which may lead to quarrels and fights. Sometimes when insignificant quantities of liquor have been taken the excitement met with has been extreme and irrational and impulsive criminal acts have been committed. This form of alcohol-intoxication has been described under the name of alcohol-intolerance or atypical acute alcoholism. This intolerance may accompany a diseased organization which is congenital, or it may be acquired through certain diseases. It is especially the hysterical and still more the epileptic neuropathy which causes a diminished power of resistance to alcohol. Injuries to the head also seem to increase the sensitiveness to the influence of the poison. In paralytic dementia, in mania and in dementia præcox we likewise not infrequently find a most exciting influence of alcohol, while confirmed drunkards sometimes develop an intolerance which leads to the appearance of most pronounced intoxication-symptoms where comparatively small quantities have been

taken. Pontoppidan has described two forms of intolerance—alcoholic automatism and alcoholic furor.

Just as cases of the so-called demented form of general paralysis have been more frequently met with of recent years than formerly, while the classical form has become more and more rare, so do we more and more frequently meet with atypical forms of acute alcoholism. This increase may be the result of our "becoming too civilized (increased neuropathy)" or because of the greater impurity of the liquors dispensed in saloons.

The most marked manifestations observed in drunkenness usually subside in a comparatively short time, although after effects may be observed for twenty-four to thirty-six hours. Direct psychological experiments have been made showing that where large doses of alcohol produce effects lasting twenty-four to forty-eight hours, and the administration is regularly repeated after this, the effect of the first dose will continue after the second has been given, and in the course of a few days a condition of lasting diminution in the capacity for mental work in various directions is developed, which, even after the liquor has been discontinued, will only gradually lose itself. This serves to give us a certain understanding of the first commencement of the mental disturbances which we call chronic alcoholism. In the majority of persons who take daily from 2½ to 3 oz. of alcohol traces of psychic disturbances may be detected. The nature of these disturbances may be inferred from the character of the manifestations observed in the ordinary intoxication, to which other mental symptoms become added in the form of loss of insight into the patient's condition, mingled with hallucinations, moral degeneration, craving for liquor, a peculiar vein of humor characteristic of the drunkard, a feeling of innocence as regards his drinking habits, with a transference of blame from himself to the wife, increased emotional irritability, restlessness and instability, together with more or less extensive changes in the different organs of the body, especially in the blood vessels. Upon this chronic inebriety is based a number of peculiar mental disturbances which in their clinical manifestations, at least in part, point toward the cause from which they have originated.

Of these disturbances the one most frequently met with is by far the delirium tremens. The approach of this diseased condition is usually proclaimed by a prodromal state of shorter or longer duration—sometimes lasting weeks—in which pronounced attacks of fear, restless sleep with vivid dreams, increased excitability of the different senses, and usually with disease-insight, the presence of which is an evidence that the delirium tremens has not set in. The dreams as a rule pursue the delirium patient during his waking hours and become so interwoven with impressions from his daily life that it is difficult for him to keep them segregated, and they are often the source of delirious ideas. He shows a jolly loquacity and is precipitate in all his movements. When he tries to tie anything he shows a coarse tremor in the hands and his tongue is likewise tremulous. He complains of jerky pains in

arms or legs and of a sensation of going to sleep in the finger tips. These are all forebodings of the storm, which may be preceded by epileptiform convulsions. Before long the patient, who for some time has been more or less sleepless, is liable to get out of bed during the night and wander about the house in a state of confusion. He is found disoriented and subject to pronounced hallucinations which monopolize his attention more or less completely and are accompanied by a constant restlessness. It is especially (4) visual hallucinations which keep the patient engaged. These are generally zoöptic—animals of all kinds, not always snakes, moving on surfaces or in the air, from large elephants to tiny insects, from giants to pygmies; imaginary coins which the patient tries to pick up from the floor, or wires and cobwebs in the air, keep him busy. The hallucinations are multiple or en masse—wherever the patient turns he finds new objects. They are mobile, constantly moving, fleeting and perpetually fleeing. (6) The diminutive is often characteristic: tiny dogs jump out of the bed, small monkeys and devils are sometimes not larger than a finger. (6) The visual hallucinations occasionally originate from illuational transformation of real sensory impressions—a spot on the floor is a button, and trying to pick this up in vain, he soon finds one lying next to it, and so on until the whole floor is full of them. The hallucinations are easily developed by suggestion; when given an imaginary 25-cent piece he will accept it with thanks and perhaps "lose it on the floor as he tries to put it in his pocket."

Liepmann's phenomenon which is almost pathognomonic of delirium tremens, is based upon the suggestibility of the delirious patient; light pressure made upon the eyeball after the lids have been closed causes the patient to give accounts, upon questioning him, of colored visual hallucinations, which may occur even during the period of convalescence.

Aural hallucinations are met with, but less constantly. They are usually elementary—a noise, shooting, ringing of bells; or he hears his name called, but does not know who is calling him. Occasionally only are the voices audible—scoldings, threats, screams of relatives in pain, etc. Hallucinations of general sensation are more common—insects are crawling on his skin, hair is growing in his mouth, etc. Some of these phenomena may be due to a perversion of the muscle-sense; for instance, the micropia may be caused by a faulty estimation of the innervation of the muscle of accommodation. Just as the hallucinations of delirium tremens show special characteristics so does the delirium itself. (5) As Professor Pontoppidan says, it is markedly incoherent. There is an absence of connection between the ideas which occupy the attention of the patient, so that he may at any time be made to give up his dreams to answer questions put to him with emphasis, but he does so only for a short time when he is again in the midst of his hallucinations. The delirium patient is in constant action and the activity is often characteristic of the patient's daily work, *i. e.*, elements indicative of the profession of each individual being recognized, although he may also busy himself with anything within reach. He

works until he is dripping with perspiration, and shows unsteady fumbling movements and a staggering walk until he falls, continuing his delirium in rummaging about on the floor. Ideas of fear and suffering frequently enter into the substance of his delirium, which is dramatic because of the immediate dangers which keep him constantly active. He may, for instance, lean against the walls of the room which he apprehends are about to fall in upon him. It is when the anxious hallucinations develop a state of terror in the patient that he makes attempts at suicide, although he usually falls short of making the step complete. Pontoppidan has called attention to the fact that the character of the delirium tremens observed in different countries has imprints reminding one of the national peculiarities, although these variations may in part be due to the toxic effect of the favorite kind of liquor used. The delirium case is exclusive. Being completely taken up with his own ideas, he ignores the real impressions emanating from without. He frequently runs up against other patients without being thereby interrupted in his bustling activity. The delirium shows nocturnal exacerbations which are almost as characteristic as in the tibial pains of lues. Even if the patient has been quiet during the day, towards evening the anxious excitement sets in again, especially in protracted cases. Formerly delirium tremens was considered an abstinence-delirium caused by an interruption of the habitual stimulation. As a rule, however, it develops in the course of a continued debauch, even frequently upon a further excess in the course of the debauch. It would seem that whenever the organism has reached a certain degree of toxic impregnation the disease may develop upon the slightest provocation, which may be a further consumption of liquor or an accidental attack of some other disease. Traumatism and acute infections, the periodical gastro-intestinal irritation characteristic of the drunkard, an acute exacerbation of a chronic nephritis or nervous shocks may act as the occasional cause. Albumen, and occasionally sugar, may be present in the urine, evidences of severe disturbances in the metamorphosis of the body, which probably are the cause of the delirium tremens. Hertz thinks the condition in delirium is analogous to that present in uræmia; others, that it is an auto-toxæmia. The uncomplicated attack may be attended by a considerable fever which in some cases may assume an adynamic form with cyanosis, threadlike pulse and cold and clammy perspiration. The delirium usually ends by crisis in two to five or six days, terminating in a deep sleep; or it may end in lysis, recovery setting in gradually. Occasionally we meet with a relapsing or remittent form. As a delirium patient recovers from an attack he is relatively lucid, though frequently mixing occurrences from his dreams with reality. He is confused at first. Like Jeppe in Holberg's comedy (one of the best descriptions of a delirium tremens found in general literature), he has to pinch himself in the arm to find out whether he is alive or not, in trying to establish his identity. Orientation and rationality, however, relatively soon become established in the majority of the

cases. In a few instances some of the fallacious ideas that were present at the height of the disease prevail and may form a transitional stage to the disease called by Bonhoeffer "chronic delirium," or, more frequently since then, Korssakow's psychosis. In this we find a profound disturbance of the powers of observation with loss of orientation and tendency to falsifications of memory, associated with a more or less pronounced alcohol-neuritis.

Acute alcoholic Wahnsinn (confusional insanity of alcoholics).—Another peculiar form of alcoholic insanity is the hallucinatory Wahnsinn of the drunkard (Wernicke's acute alcoholic hallucinosis), which consists of a rapid development of connected persecutory ideas, particularly based upon aural hallucinations, the patient being at the same time lucid and conscious. The disease begins as a rule suddenly and toward evening or in the night. Occasionally there is a preliminary state of mental depression without any apparent cause, irritability, impediment of thought, headache and sleeplessness. The patient is seized with a feeling of intense fear, which puts him into a perspiration. He hears noises of all kinds, voices coming from all directions abuse him, threaten to do him or his family harm—sometimes talking about him, sometimes talking to him. Hallucinations of vision and of the other senses may be experienced, and all these serve as a basis for the development of pronounced delusions. He thinks he has become the object of scorn by the world at large. The whistle of a passing locomotive is sounded as a spite against him, etc., the ideas being attempts at explanation of the predominating aural hallucinations, to which sometimes grandiose ideas become added. Consciousness seldom becomes clouded. It is only upon closer inspection that a certain dullness and bewilderment are observed. The mood of the patient shows a peculiar mixture of fear and humor similar to what is seen in delirium tremens. The behavior of the patient is generally orderly, though his actions are often most singular. He is more or less sleepless, but the appetite may at times remain fairly good. The restlessness and tremor are less pronounced than in delirium tremens. The alcohol-Wahnsinn may have a duration of weeks and months, and usually terminates in complete recovery, though a much larger percentage of cases are met with in this form than in delirium tremens in which incurable mental enfeeblement remains. Certain delusions and hallucinations are found embedded in this dementia. This is especially the case where we find hallucinations of other senses than that of hearing. The alcohol-Wahnsinn frequently terminates in the third chief form of alcoholic insanity:

Alcohol-paranoia (Hallucinatory dementia of alcoholics).—Though delirium tremens almost as often takes this course, which is always rapid, the patient becomes lucid, cognizant of surroundings, quiet, but is seclusive and suspicious, and a number of the sensory hallucinations remain, especially those of hearing. People read his thoughts, inter-

rupt him, have control over him. He is hypnotized, chloroformed, charged with electricity, etc. His privates are interfered with. The delusions show as a rule sameness of character, though they may in some cases be fairy-tale like, interwoven with grandiose ideas. The patient is usually cognizant of surroundings, and in the intercourse with those around him shows fairly normal activity and interests as long as these are not associated with his persecutory ideas. A certain amount of mental dullness and weakness is, however, present, although his memory and powers of observation may be fairly intact. The emotions show at first marked irritability and anxiousness, and the patient is therefore often suicidal and homicidal, but later he usually becomes more jolly and full of humor. Tremor and more or less pronounced neuritic disturbances are present. The course of the disease shows marked chronicity, although total abstinence may bring about considerable improvement. The disease has some symptoms in common with katonias, but the many morbid disturbances of willpower of the latter are of course absent. Associated with the alcohol-paranoia is a form of chronic alcoholism known as insanity of jealousy of drunkards, in which the hallucinations and delusions are principally centered upon the imagined sexual misbehavior of the wife. That the chronic alcoholic should show this particular delusional tendency is not to be wondered at when one thinks of the estrangement which necessarily must result between a drinking man and his wife—and when one remembers the selfishness of the typical drunkard, who is never willing to blame himself for his drinking habits but is always ready to throw all blame upon his surroundings and especially his wife, who frequently is unwilling to desert him in spite of the misery he has inflicted upon her. One may well think of the wife when quoting the words of Solomon: "Who hath woe? Who hath sorrow? Who hath contentions?"

In connection with chronic alcoholism must be mentioned the alcoholic paralysis, which in the majority of cases is simply a combination of the symptoms of chronic alcoholism with those of general paralysis; also the so-called alcoholic pseudo-paralysis, which consists of severe cases of hallucinatory alcoholic dementia associated with more or less pronounced symptoms of Korssakow's psychosis.

Epileptic attacks are observed in a large number of inebriates, sometimes in connection with extreme intoxications, sometimes in the course of chronic alcoholism even after an abstinence of some duration.

Furstner and Simmerling found them in 30-35% of drunkards in Germany, but only in 10% of the cases of chronic alcoholic insanity. In California the epileptic attacks seem comparatively quite rare. Wildermuth and Magnan think that alcohol in the majority of cases is only the occasional cause.

(6) Kraepelin is of the opinion that mild epileptic attacks may be transformed under the influence of liquor into the severest forms of these attacks,

constituting the disease picture which is known as "Dipsomania."

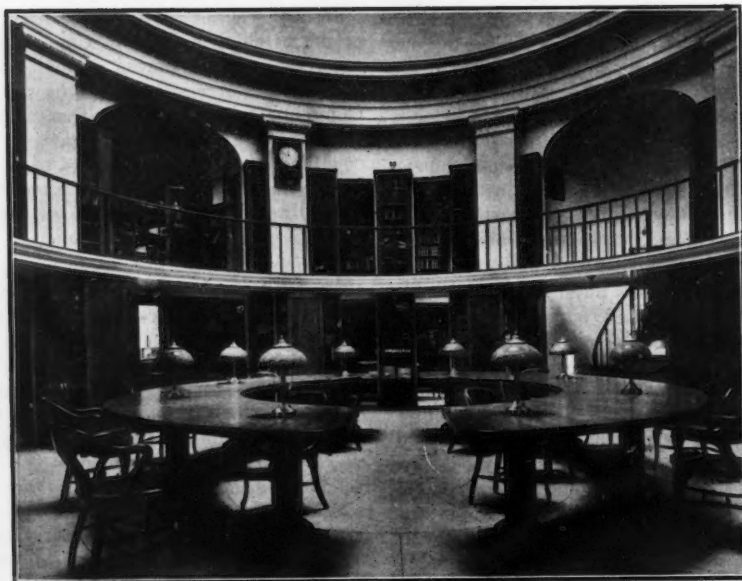
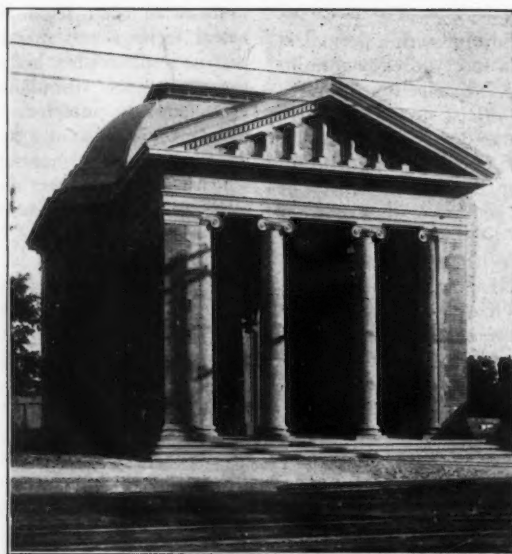
We are dealing in this condition with a periodical development of craving for a most unreasonable indulgence in alcoholic drinks. Kraepelin claims to have demonstrated that the attack begins regularly with a condition which corresponds exactly with the mental depression of epilepsy, such as discomfort, precordial anxiety, deep depression, satiety of life, increased irritability, a sensation of weight in the head, loss of appetite, sleeplessness and sometimes sexual excitement. When the craving for drink comes upon the dipsomaniac he can not be restrained by any one. He may force his wife by violent threats to give him money, and may then run straight for the nearest saloon, sometimes getting out of bed in the middle of night to do so. He becomes excited, irritable, talkative and restless, runs from one saloon to the other, treats everybody and often spends large sums. After a certain length of time this wild behavior ceases, he no longer knows exactly what he is doing, especially where he has spent his money, being at the same time worried about what has occurred and now begins to moderate, and then often does not drink a drop of liquor for a long period, although the sprees usually recur with increasing frequency. When he convalesces he is fully conscious, has disease-insight, feels sick, depressed and complains of pressure in the head. He has in contrast with the chronic alcoholic a desire to be cured: "I have to drink," he will say, "and do not wish to drink. When it comes, I must go to the saloon, and when it is gone I have a feeling of loathing for it." Kraepelin claims to have been able to show in these "quarter-drunkards," as he calls them, every conceivable transitional form from dipsomania to true epilepsy.

All the above described physical and mental symptoms are directly caused by an excessive indulgence in liquor. The indirect results of alcoholic abuse are, however, perhaps even more serious and far-reaching. It first of all plays a prominent role in the causation of crime and as a contributing cause in insanity other than alcoholism, and secondly it brings about a degeneration of the race. In this connection it should be mentioned that alcoholic excesses also act as pilot in the introduction into the human organism of another poison, syphilis. In many cases this disease is contracted by men under the influence of liquor, who in a state of intoxication unhesitatingly expose themselves. Alcohol may therefore play the role of an indirect cause in the true form of general paralysis—a common and dreaded form of insanity, which has a recognized etiological relation to syphilis. With regard to crime, (7) Kraepelin found in his investigations of the crimes due to alcohol and those due to mental disease during the year 1898 in that district of Baden which sent patients to his clinic at that time in Heidelberg, that the crimes by insane were insignificant in number (about 16 to 75) compared to those caused by alcoholism. In view of the pronounced criminal tendency of alcoholics, it would

seem just to deprive certain cases, especially of dipsomania of their legal rights. Inebriety dulls the moral feelings and the discretion of the individual just as it diminishes his power of resistance against the desire for stimulants. It therefore, as (8) Hallager says, interferes with the prevailing counter-ideas which should keep him away from crime. At the same time inebriety places him in situations which carry with them incentives to crime, reducing him pecuniarily and tempting him to appropriate the property of others. It makes him irritable and angry and brings him into the society of comrades who are just as bellicose, leading him therefore to commit crimes of violence. The alcoholic intoxication makes its victim act without thinking, causes him to give up to suddenly arising desires or outward incentives without giving him time to think about the consequences, which circumstance makes the drunken person yield to a temptation which would not be dangerous to the sober man. For this reason we find that the inebriate comparatively seldom commits such crimes as theft, embezzlement or forgery, but usually crimes of violence as manslaughter, assaults, disturbances of peace, etc. The role which liquor plays in the direct and indirect causation of insanity is far greater than that of any other one cause. Prof. Friedenreich, the director of the psychiatric clinic in Copenhagen, told me in 1903 that alcohol played a role in nearly 90% of all the cases received there (the department of the Commune-hospital admits all cases in which mental symptoms are present, and draws its clientele principally from the lower classes of a city of nearly a half million inhabitants). Kraepelin found that alcoholists formed about 25% of the male patients received in the Heidelberg clinic.

During the last five fiscal years from July 1, 1901, to July 1, 1906, there were received at my department of the Stockton Insane Asylum 673 male patients (123, 134, 121, 154 and 141 respectively). Among these cases there were 18, 20, 14, 19 and 33 alcoholists for each year respectively, or in all 104 cases, which is about 15.45% of the total number of admissions. The 104 alcoholists included 48 cases of delirium tremens. The proper place for the cure and treatment of this form of alcoholism is a home for inebriates, but as the State has not seen fit to establish such an institution, and as long as the delirium cases of some counties are always kept in the jail or receiving hospital, while even in the case of the counties that finally send them to the asylum, most of the delirium runs its course in the jail anyway, why should the above 48 cases have been sent to the asylum? Applying the percentage of delirium tremens cases among the 673 male patients admitted to my department, to the total number of male patients received at the five California institutions during the last five years or 4505, the number of cases of delirium tremens committed in California during this period may be estimated to have been about 350 or about 70 cases yearly.

(To be continued.)



THE BARLOW MEDICAL LIBRARY OF LOS ANGELES.

By George H. Kress, M. D., Los Angeles.

California physicians, both north and south of the Tehachepi, have occasion, in the recent dedication of the Barlow Medical Library of Los Angeles, to doubly congratulate themselves. One, because Los Angeles, California and the whole southwest thereby came into possession of the most substantial library building west of the Mississippi, and two, because the donor of the gift was not, as is usually the case, a layman with large private means, but in this instance a member of the younger branch of the Los Angeles profession, who is in active practice in that city.

The building and equipment of the institution cost the donor, Dr. W. Jarvis Barlow, Professor of Clinical Medicine in the College of Medicine of the University of Southern California, more than thirty thousand dollars. The control of the institution he turned over to a Board of Trustees elected by the patron members, the patron members being physicians who had subscribed twenty-five dollars annually. In addition to these members there are annual members who pay ten dollars and associate members who pay five dollars yearly. The first Board of Trustees consists of Dr. Milbank Johnson, President; Dr. Stanley P. Black, Secretary; and Doctors George L. Cole, Wm. A. Edwards, Fitch C. E. Mattison, B. F. Church and John R. Haynes.

On the occasion of the dedication, which took place on February the seventh, the major address of the evening was delivered by the Rev. Burt Estes Howard, who made an earnest plea that the library be a true scholar's workshop and that it be conducted on the broadest possible lines, the final desideratum to be sought being the truth in science, no matter at what cost to cherished theories, or to preconceived, so-called scientific opinions.

The building itself is of a dignified Grecian type, and is one solid mass of cement, the interior finish being of highly polished oak. The institution has been called the Barlow Medical Library by the Board of Trustees and starts its career of active work with the five thousand or more volumes which were on the shelves of the College of Medicine of the Southern California.

Until an endowment is raised, the expenses of the institution will be defrayed through donations and by annual membership fees as mentioned. Membership is open to all registered physicians in California and arrangements will be made to place in the offices of out of town members such books and publications as they may desire in their reading or work.

The building has been erected at 740 Buena Vista street, within eight minutes distance of the center of the city and is opposite the buildings of the College of Medicine, U. S. C. The Librarian, Miss M. Williams, who has had much experience in library work is busily engaged in card cataloguing the library according to a modified Dewey classification.

It is the hope of the Board of Trustees that the profession of the entire Southwest will feel free to avail themselves of the privileges of this institution and that they will aid also, in increasing its value and scope by the donation of books, periodicals, reprints and other data of interest. Loans of books and prints will be gladly accepted. A plea is also made that those who have manuscripts and other memorabilia of the pioneers of the profession on the Pacific Slope and the Southwest, send such to the library for safe-keeping and reference.

This fire proof building should serve not only as a repository for printed pages from elsewhere, but it should also become a place where the records of the medical men of the past and present of this section of our land may be found.

If any readers of this sketch are interested in this work or have books or publications to donate or to lend, such persons will confer a great favor by communicating with either the President, Dr. Milbank Johnson, or the Secretary, Dr. Stanley P. Black, who will be glad to give detailed information concerning the library.

COUNTY SOCIETIES.

SANTA CLARA COUNTY.

The Santa Clara County Medical Society held its regular monthly meeting on February 20th, with twenty-two members present. Dr. Thomas of Palo Alto and Dr. C. I. Beattie of Santa Clara were guests of the Society for the evening.

Drs. Jordan, Beattie and Kapp brought patients before the Society and gave their histories, diagnosis and treatment. Several members of the Society took part in the discussion that followed the presenting of the cases.

Beginning March 6th this Society will have its meetings every two weeks, and it is the intention to hold one meeting a month in some of the other cities in the county. On March 6th we go to Santa Clara and from all accounts it looks as though our

entire membership will be in Santa Clara on that date.

President Osborne spoke of the needs of the Juvenile Court of this city and the members volunteered their services as physicians and surgeons. The attendance at our meetings is growing larger and larger and our fortnightly schedule is but a forerunner of weekly or even bi-weekly meetings.

K. C. PARK, Secretary.

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held at the office of Dr. E. L. Blackman, Friday, February 22, 1907. Members present: Drs. M. Goodman, M. Taylor, E. L. Blackmun, C. R. Harry, J. J. Tully, H. E. Sanderson, R. R. Hammond and B. J. Powell; Dr. Walker as guest.

The principal business of the evening was the arranging and adopting of the new fee bill. A number of changes were made in the fee bill and it was decided that after its adoption each and every member of the county society sign the same, after which the fee bill would be published in one of the daily papers, and that all members be absolutely requested to live up to the new schedule of fees. Recently many misunderstandings have been caused by some of the members and the laity not being familiar with the fee bill. Hence, this course was taken.

The names of five doctors were presented for membership, those of Dr. J. V. Craviotto and Dr. I. S. Zeimer of Stockton and Drs. F. Grosshauser, A. M. Tower and F. W. Klonk of Lodi.

Dr. Blackmun read a very interesting paper on "Opsonins." The discussion was opened by Dr. Mary Taylor, who was followed by the members present. After refreshments the society adjourned to meet with Drs. Fitzgerald and Southworth the last Friday in March, when Dr. A. W. Morton of San Francisco will be expected to present a paper to the society.

BARTON J. POWELL,
Secretary.

ARMY MEDICAL CORPS EXAMINATION.

Preliminary examinations for appointment of Assistant Surgeons in the Army will be held on April 29 and July 29, 1907, at points to be hereafter designated.

Permission to appear for examination can be obtained upon application to the Surgeon General, United States Army, Washington, D. C., from whom full information concerning the examination can be procured. The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between 22 and 30 years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training or its equivalent in practice. The examinations will be held concurrently throughout the country at points where boards can be convened. Due consideration will be given to the localities from which applications are received, in order to lessen the traveling expenses of applicants as much as possible.

In order to perfect all necessary arrangements for the examinations of April 29, applications must be complete and in possession of the Surgeon General on or before April 1. Early attention is therefore enjoined upon all intending applicants.

There are at present twenty-five vacancies in the Medical Corps of the Army.

MEDICAL BIOGRAPHIES.

To the Editor of the State Journal: Dr. Howard A. Kelly, of Baltimore, is engaged in the very commendable task of compiling a "Cyclopedia of Medical Biography," especially of American physicians and surgeons who have left their mark on the development of medicine and surgery in our country.

In a personal letter to the undersigned, Dr. Kelly writes as follows: "We want not only great discoverers and writers, but men of great local reputation, who may have left no written monuments behind them. I send you a memorandum outline to which, in general, the biographies ought to conform. I would suggest that they take up from one-half page to a page as a rule; for a man of unusual prominence two pages or more. I would be glad if we could find several men in California requiring a three-page biography, 500 words to a page."

The memorandum outline to which Dr. Kelly refers gives the following plan of the biographies:

"In collecting our biographies, we want to get the names of all physicians of prominence in the entire country, including Canada.

"By a man of prominence I mean one who has been looked upon as a great man by his associates on account of his originality or boldness, or on account of his influencing the practice of his contemporaries to any marked degree.

"I want particularly the names of surgeons who were the first to introduce or perform important operations. The names of some of the older physicians who were associated with the advocacy of special drugs, or forms of treatment.

"Notes may be extended from 5 to 10 lines to several pages, according to the eminence of the subject.

"Enclose photograph, if possible, with name written on it and age when taken. Note any portraits or painting extant.

"The following data ought to be secured in each case:—

"Name in full, including middle name, immediately followed by year of birth and death.

"Place of practice.

"Place and date of birth.

"Education and degrees.

"If under one or more celebrated teachers, name them.

"If he studied abroad, state when and where.

"Honorary degrees and other scientific honors.

"Membership in scientific and learned societies.

"Positions held, with dates.

"The character of his practice, original work.

"Writings (only important ones, if list is long), with references.

"Married, and to whom.

"Children, comment on any child who became well known.

"Narrate any interesting events to give life and personal color to sketch, such as anecdotes or description of personal characteristics.

"Give reference to previous biographies.

"Date and place of death."

The medical history of the Great Southwest is by no means uninteresting and it behooves us to have in this Cyclopedia a proper representation. A plea is therefore made to California physicians to send in to us the names and biographical data of practitioners, dead or living, whom they deem worthy of a place in such an important work. Such data may be directed to the undersigned and due acknowledgment will be made. The writer of this communication asks the co-operation of the profession in California, and would be pleased to correspond with those who are interested in the subject.

GEORGE H. KRESS,

602 Johnson Bldg., Los Angeles, Cal.

NO LANE LECTURES IN 1907.

The Directors of Cooper Medical College regret to announce to the medical profession that the Lane Medical Lectures will not be given in 1907.

In 1896 Dr. Levi Cooper Lane announced to the Directors of Cooper College that he had founded and endowed a course of ten lectures to be given annually in Cooper Medical College and to be named the Lane Medical Lectures, and imposed upon the Directors the duty of choosing the lecturers after his death. The endowment of the lecturers was not completed, however, by Dr. Lane in his life time, by reason of the fact that almost all of his property was in unproductive real estate, out of the proceeds of the sale of which he intended to make the endowment and also, with the co-operation of Mrs. Lane, to found and endow a great medical library in connection with the college.

The honorarium of the lectures was paid by Dr. Lane during his life time and, after his death and that of Mrs. Lane, which occurred a few months later, by the executors of her will. For the last four years it was paid by Dr. Charles N. Ellinwood to whom Mrs. Lane, after leaving to the College, for the purposes of the library above mentioned, all she legally could under the laws of California, bequeathed the remaining two-thirds of her entire estate.

It was confidently expected by the Directors that Dr. Ellinwood would complete the endowment of the Lane Medical Lectures out of the moneys and properties left him by Mrs. Lane but so far that expectation has not been realized. When the Directors desired to appoint a lecturer for 1907, Dr. Ellinwood, who was then President of Cooper College, stated that he would not advance the honorarium for the year 1907.

For these reasons the lectures for this year will not be given.

NEW CATALOGUE.

To the Editor of the State Journal:

Under separate cover we are sending you a copy of our new illustrated 1907 catalogue, and should you feel inclined to mention in your journal that a copy of this catalogue will be sent upon receipt of a postal card to any one of your subscribers, we will appreciate the same.

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